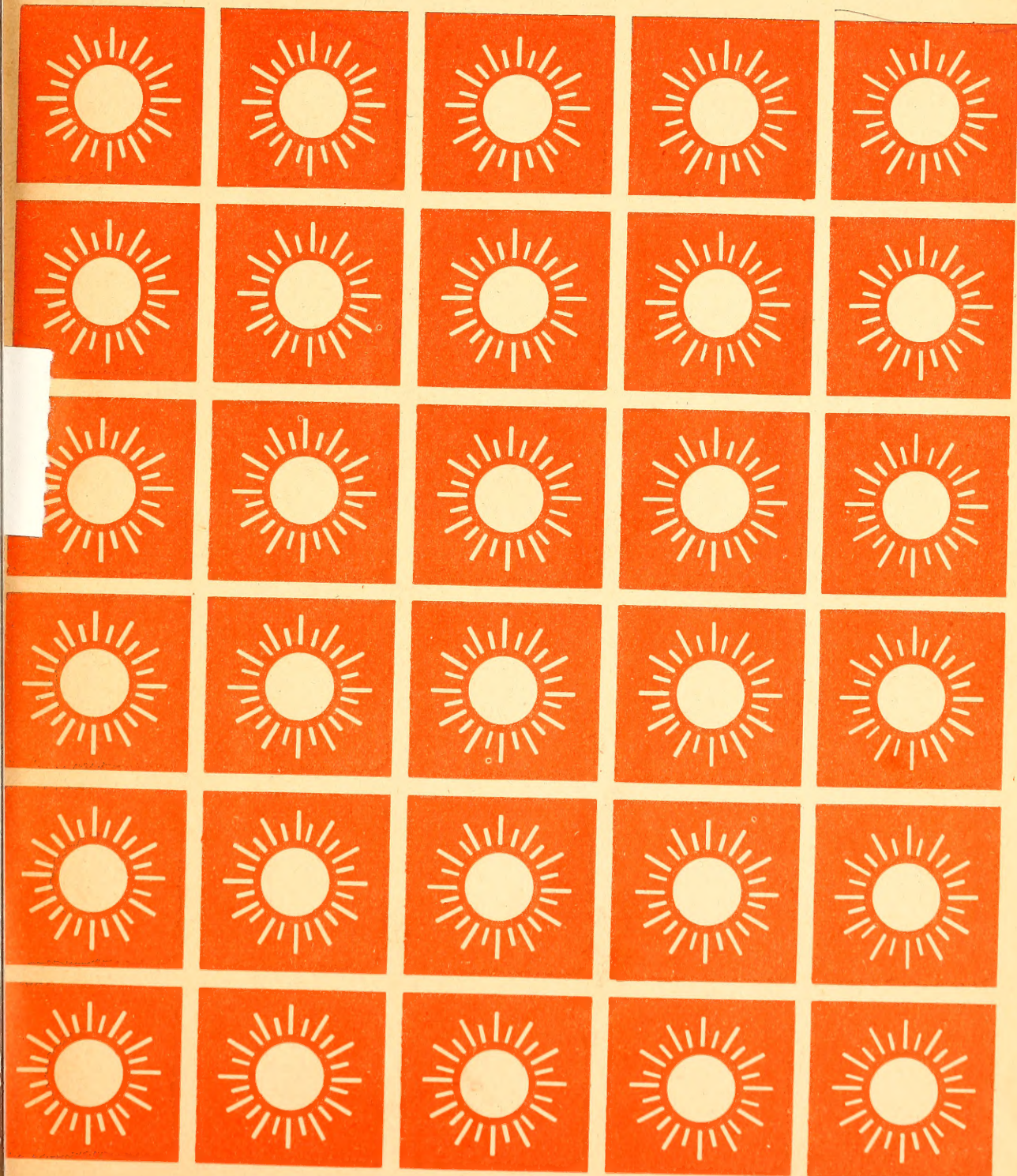


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Southern Illinois University
Carbondale

Summer Session 1977
Schedule of Classes
Carbondale



Southern Illinois University Bulletin

Summer Session 1977

Schedule of Classes
Carbondale



Southern Illinois University at Carbondale is in compliance with Title IX of the Education Amendments of 1972. In part, Title IX mandates that no person shall, on the basis of sex, be excluded from participation, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. Inquiries concerning the application of Title IX regulations may be directed to Dr. Mary Helen Gasser or Mr. Richard Hayes, University Affirmative Action Office, Anthony Hall, Room 104, telephone 536-6618.

Southern Illinois University Bulletin

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This issue of the Southern Illinois University Bulletin contains the schedule of classes to be offered by Southern Illinois University at Carbondale for the 1977 summer session at Carbondale, at the Vocational-Technical Institute Campus, at Little Grassy Lake, and at graduate residence centers. It also provides information relative to admission, advisement, registration, and fees.

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University Calendar

Spring Semester 1977

Semester Classes Begin
Washington's Birthday Holiday
Spring Vacation

Final Examinations
Commencement

Monday, January 17, 8:00 A.M.
Monday, February 21
Saturday noon–Monday 8:00 A.M.,
March 19–28
Saturday–Friday, May 7–13
Saturday, May 14

Summer Session 1977

Eight-Week Session Begins
Independence Day Holiday
Final Examinations
Commencement

Monday, June 13, 7:30 A.M.
Monday, July 4
Thursday and Friday, August 4–5
Saturday, August 6

Fall Semester 1977

Semester Classes Begin
Labor Day Holiday
Thanksgiving Vacation

Final Examinations

Monday, August 22, 8:00 A.M.
Monday, September 5
Saturday 10:00 P.M.–Monday 8:00
A.M., November 19–28
Saturday–Saturday, December 10–17

Spring Semester 1978

Semester Classes Begin
Washington's Birthday Holiday
Spring Vacation

Final Examinations
Commencement

Monday, January 16, 8:00 A.M.
Monday, February 20
Saturday 10:00 P.M.–Monday 8:00
A.M., March 18–27
Saturday–Friday, May 6–12
Saturday, May 13

Calendar of Events

Preregistration is required for the tests listed below. Please contact the Testing Division, Career Planning and Placement Center, Washington Square, Building C, at least four weeks before the scheduled test. At the time of this publication, dates for many of the tests to be given were not yet available. Contact the Testing Division concerning the scheduled dates for those other tests.

May

21, Saturday	Test of English as a Foreign Language (National)
21, Saturday	Entrance Examination for Schools of Nursing

June

10, Friday	American College Testing Program (Residual)
11, Saturday	Graduate Record Examination
18, Saturday	American College Testing Program (National)
25, Saturday	Graduate School Foreign Language Test

July

9, Saturday	Test of English as a Foreign Language (Residual)
9, Saturday	Graduate Management Admission Test
16, Saturday	National Teacher Examination
23, Saturday	Law School Admission Test

Registration Calendar Summer Session 1977

Advance Registration Dates

Advance Registration Period for All Students, Tuesday, February 22–Friday, May 6.

All continuing students are expected to be registered by May 6. Program changes may be processed during the advance registration period. Students are urged to process program changes prior to the first day of classes.

Deadline for Payment of Tuition and Fees by Mail, Friday, June 3.

Payment must be mailed to the Bursar prior to this date to insure receipt of payment by this date. Students paying after this date must pay in person at the Bursar's Office in Woody Hall.

Last Day to Pay Tuition and Fees for the Summer Session, Friday, June 10.

Registration will be cancelled if fees are not paid at the Bursar's Office by 4:00 P.M. on this date.

Final Registration Dates

Registration for Any Student Not Registered, Friday, June 10

Students registering on these dates must clear their fees with the Bursar the same day they register.

Last Day to Register for the Summer Session, Friday, June 10

Registration for any student not registered. Registration ends at 4:00 P.M. All registrations are cancelled if tuition and fees are not paid before 4:00 P.M. on this date. Students registering after this date must have special permission of their dean to register late.

Program Changes or Withdrawal from School

Advisement and Registration Open for Program Changes

Program changes may be processed during the advance registration period (February 21–May 6) and during the first week of classes, June 13–17.

Last Day to Add a Class or Section, Friday, June 17

This is the last day to make a program change in which a course is added or a section is changed without dean's permission.
Students adding a course which begins after June 17 may add through the first day the course meets without the dean's permission.

Deadlines for Withdrawing from School or from a Course

<i>If Classes Meet for</i>	<i>Section Number Range</i>	<i>Deadline for Withdrawal to Receive Refund</i>	<i>Deadline to Withdraw Without a Grade</i>	<i>* Deadline to Change Audit, Credit, or P/F Status</i>
7 or 8 weeks	201-299	June 24	July 1	July 1
4-6 weeks	301-399	1st week	2nd week	2nd week
2 or 3 weeks	401-499	1st week	1st week	1st week
Less than 2 weeks	501-599	2nd day	2nd day	2nd day

* Students changing from credit to pass/fail or from credit to audit after these deadlines must have dean's approval.
† An exception to the section number range scheme is the course GSD 101, which frequently has an offering of more than one-hundred different sections which meet the full 16 weeks.

Last Day to Process a Program Change or Withdrawal for the Summer Session, Friday, July 29

This is the last day to make a program change or to withdraw from school except under exceptional circumstances. Students enrolled in courses which meet less than eight weeks must process a program change or withdrawal before the last week of the course.

Registration Instructions

Refer to pages in the back of this publication for registration work sheets that may be used in determining your class schedule.

Early Semester Calendar

Southern Illinois University at Carbondale has changed from the quarter system to an early semester calendar.

All references in this bulletin to hours of credit are to *semester hours* unless otherwise specified. One semester hour of credit is equivalent to one and one-half quarter hours.

1 General Information

THIS BULLETIN contains the schedule of classes offered for the 1977 summer session, by Southern Illinois University at Carbondale. It also provides information relative to advisement and registration, fees, and allied information.

Admission

Inquiries concerning undergraduate and graduate admission should be directed to the Admissions Office.

Advisement and Registration

Southern Illinois University at Carbondale uses an academic advisement system whereby each undergraduate academic unit has a chief academic adviser and a number of assistant advisers selected from the teaching faculty. Graduate students initiate advisement with their graduate adviser and complete the registration process at the Registration Center, except that unclassified graduate students go directly to the Registration Center (Graduate/Off-Campus Registration Area) to complete both the advisement and the registration processes.

After advisement the student may register for classes. See the Registration Calendar in this bulletin. During the registration process the student goes to the Registration Center, where he selects specific sections of the courses he is to take.

Cancellation of student registrations for non-payment of fees occurs on the date indicated in the Registration Calendar.

Mere attendance does not constitute registration in a class, nor will attendance in a class for which a student is not registered be a basis for asking that a program change be approved permitting registration in that class. Students should complete the registration process before classes begin.

New Students

Students entering the University for the first time are permitted to advance register only after they have been admitted to the University as evidenced by their receiving the Certificate of Admission.

New undergraduate students, freshmen and transfer, will be expected to advance register on the same date that they come to the campus for advisement. Dates for students to do so will be selective ones in which the students are asked to come to the campus on specific dates as determined by the University. Students should not expect to be advised and registered on the same date they are admitted nor are they to come to the campus for advisement and registration without an appointment.

2 General Information

Appointments for advisement and registration will be mailed from and are to be returned to the Office of Admissions and Records or the appropriate academic unit.

New graduate students may register during the registration periods indicated in the registration calendars. Arrangements should be cleared with the appropriate graduate adviser prior to coming to campus.

Re-Entering Students

Students who have attended the University at some former time but not during the session immediately prior to the time they plan re-entry are expected to advance register during the periods outlined in the Registration Calendar. After completing readmission procedures advisement appointments should be made at the advisement offices of the academic units into which the students are entering and clearance of the registrations should be completed on that same day at the Registration Center.

Current Students, Carbondale

Students currently registered in the University will be continued in their present curricula unless a change of college or major is made. A change of college or major is initiated with the student's adviser. Either change should be made at the time of advisement.

Undergraduate students currently registered in the University will schedule appointments with their adviser. Registrations should be processed through the Registration Center as soon after advisement as possible.

Graduate students in a degree program should make appointments with the departmental adviser for program advisement. Unclassified graduate students may report directly to the Registration Center for registration.

Off-Campus Students

The University offers courses at various locations off campus. The locations of these courses are printed in this schedule of classes or may be obtained from the Division of Continuing Education. Students who wish to enroll in off-campus courses may register and pay tuition at the first class meeting.

Course Load

The minimum number of hours of credit that a student may take during a regular-length semester and be considered by the University a full-time student is twelve semester hours. The maximum load for a regular-length semester is eighteen semester hours (sixteen for graduate students) unless an exception is granted by the student's academic dean.

The minimum number of hours of credit that a student may take during the eight-week summer session to be considered by the University a full-time student is six semester hours. The maximum load for summer session is nine semester hours unless an exception is granted by the student's academic dean.

Tuition and Fees

Tuition and fees charged students are established by the Board of Trustees and are subject to change without prior notification whenever conditions necessitate. All assessments depend on "Semester Hours Enrolled," according to the table below. Students will be assessed tuition and fees each term according to Table 1.

Additional Fee Information

1. Graduate, medical, and law students are not required to pay the Stu-

TABLE 1: On-Campus Tuition and Fee Schedule

Semester Hours Enrolled	TUITION		STUDENT FEES					TOTAL				
	Illinois Resident	Non- Resident	STS Grant (1)	Student Attorney (2)	Student Center (3)	Student Activity (4)	SWRF (5)	Athletic (6)	Medical (7)	SWRF-M (8)	Illinois Resident	Non- Resident
1	\$ 18.00	\$ 54.00	2,225	1,000	10,000	2,250	\$.50	\$ 7.00	\$17.25	\$15.00	\$ 73.50	\$109.50
2	36.00	108.00	2,225	1,000	10,000	2,750	.50	8.00	17.25	15.00	92.75	164.75
3	54.00	162.00	2,225	1,000	11,000	3,000	.50	9.00	17.25	15.00	113.00	221.00
4	72.00	216.00	2,225	1,000	12,000	3,250	1.00	10.00	17.25	15.00	133.75	277.75
5	90.00	270.00	2,225	1,000	13,000	3,500	1.50	11.00	17.25	15.00	154.50	334.50
6	108.00	324.00	2,225	1,000	14,000	3,750	2.00	12.00	17.25	15.00	175.25	391.25
7	126.00	378.00	2,225	1,000	15,000	4,000	2.50	13.00	17.25	15.00	196.00	448.00
8	144.00	432.00	2,225	1,000	16,000	4,250	3.00	14.00	17.25	15.00	216.75	504.75
9	162.00	486.00	2,225	1,000	17,000	4,500	3.50	15.00	17.25	15.00	237.50	561.50
10	180.00	540.00	2,225	1,000	18,000	4,750	4.00	16.00	17.25	15.00	258.25	618.25
11	198.00	594.00	2,225	1,000	19,000	5,000	4.50	18.00	17.25	15.00	280.00	676.00
12+	214.00	642.00	2,225	1,000	20,000	5,250	5.00	20.00	17.25	15.00	299.75	727.75

The fees which have been established by the Board of Trustees are payable by all students as a condition of enrollment unless they are specifically exempted by the board. All fees are considered to be institutional in nature and require payment regardless of whether or not the student receives direct benefits or is in a location which permits access to such benefits.

The Student-to-Student Grant Program Fee, the Students' Attorney Fee, and portions of the Student Medical Benefit Fee are refundable under certain circumstances.

- (1) The Student-to-Student (STS) Grant Program Fee provides funding of a student grant program. The fee is payable by undergraduate students only. Undergraduate students who do not wish to participate in the program may seek a refund of the fee by contacting the Office of Admissions and Records within ten days of the date of payment of fees.
- (2) The Students' Attorney Fee provides funding for a legal service program. The fee is payable by all students. Students who do not wish to participate in the program may seek a refund by contacting the Office of Admissions and Records within ten days of the date of payment of fees.

- (3) The Student Center Fee provides funding for operation of the Student Center.
- (4) The Student Activity Fee provides funding for student organizations and activities on campus.
- (5) The Student Welfare and Recreation Fund (SWRF) Fee provides funding for construction and operation of physical facilities for student recreation and intramural programs.
- (6) The Athletic Fund Fee provides partial funding of the University's intercollegiate programs for men and women.
- (7) & (8) The Student Medical Benefit Fee and the Student Welfare and Recreation Fund-Medical (SWRF-M) Fee provide funding for a comprehensive student health program including emergency service; hospitalization; specialty, primary, intermediate, or infirmary care; and prevention program. A student who pays these fees is entitled to full medical benefits at Health Service. If he feels that he has comparable coverage, he may seek a refund of the \$17.25 fee within the first four weeks of each semester by contacting the administrative director of Health Service.

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must be given prior to enrolling for courses. Employees who are approved pay only the Student Center Fee, the Student-to-Student Grant Program Fee and the Students' Attorney Program Fee.

3. Students taking courses in extension or at approved residence centers are required to pay *tuition* as listed in the table above but do not pay *student fees*.

4. Adult education course fees are computed on the basis of approximately sixty cents per contact hour.

5. Other charges which students may incur are those for departmental field trips, library fines, and excess breakage. Also, students taking a course involving use of materials, as distinct from equipment, will ordinarily pay for such materials.

6. Students enrolling in both on- and off-campus courses pay tuition and fees based upon the on-campus tuition and fee schedule for the combined total of hours enrolled.

7. Students enrolled in Public Service Courses pay tuition plus \$3.00 per hour fees divided equally between Student Center and Medical. Students enrolling in a combination of Public Service Courses and regular on-campus courses pay tuition and fees based upon the on-campus tuition and fee schedule for the combined total of hours enrolled.

8. School of Medicine students enrolled at Carbondale do not pay the Student Medical Benefit Fee (\$17.25). Medical students at Springfield do not pay the Student Center Fee, SWRF Fee (non-medical portion), Athletic Fee, or Student Medical Benefit Fee.

Payment of Fees

Undergraduate students receive their fee statements at the time of registration. During the advance registration period students are asked to delay paying their fees in person at the Bursar's Office until the day following registration. This is to permit necessary fee information to reach the Bursar by the time of fee payment. Students will find it easier simply to mail the fee statement along with a check or money order for the proper monetary amount to the Bursar's Office so as to arrive there by the deadline dates which are stated in the Registration Calendar located earlier in this bulletin. If students pay fees in person at the Bursar's Office they receive a Student Fee Statement at that time. When fees are paid by mail, the fee statement may be picked up by the student when he returns to campus. It is important that these forms be carried by the students at all times.

Students registering at the start of a semester must pay fees at the time of registration.

Deferment of Tuition and Fees

Special fee deferments are available to students who (1) can demonstrate financial need, (2) meet minimal requirements, and (3) can provide written verification of the ability to pay. Information on fee deferments is publicized each term in the Student Relations Office, Office of Admissions and Records, Bursar's Office, Student Work and Financial Assistance Office, and the *Daily Egyptian*. Guidelines may vary from term to term and year to year and the student is advised to seek out the accurate information rather than assume that he/she qualifies for a deferment.

Students applying for a fee deferment must complete registration to the receipt of a fee statement. Applicants must be full time students as defined by the Office of Admissions and Records and the fee statement must bear a minimum balance of \$65. The fee statement and written verification from the source of funds to be used to pay tuition and fees

must be presented to the Student Relations Office to obtain an application. Applications are processed one week prior to the first week of classes. Recipients of fee deferments will not be allowed to register for any future semester until payment is made. Additional information on deferments is available in the Student Relations Office. Phone or mail requests for deferments will not be accepted.

If approval is granted, tuition and fees will be placed on Fee Code 66 for the term and the student will be obligated to pay by the approved deferred date. Failure to pay deferred fees will result in withholding of permission to register for succeeding terms and withholding of transcripts.

Audit and Non-Credit Courses

Students who register for a course for *audit* or for a non-credit course will be assessed fees according to the imputed hours of that course. *Imputed hours* is generally the number of hours the class meets per week.

Scholarships-Grants-Assistantships-Waivers

Students having special fee status, such as scholarships, grants, graduate appointments, faculty, and staff, will pay fees according to their particular fee status and must provide proof of their eligibility at the time fees are assessed.

Students holding valid state scholarships and other grants are exempt from some or all of the tuition and fees for a semester to the extent provided by the terms of the specific financial aid. Additional information concerning scholarships and grants may be obtained from the Office of Student Work and Financial Assistance.

Graduate Appointees

A graduate student who holds a graduate-student appointment of at least one-quarter of full time and who is appointed for the full length of an academic term (semester or full-length summer session) is eligible for a waiver of tuition each academic term the appointment is held. If a student is appointed for less than a full academic term on a fiscal pay basis, he is not eligible for a tuition waiver for that academic term.

A student who holds an appointment for the full academic term but resigns before the end of that term, and who continues to be registered for courses, shall be liable for the full tuition for the term.

A graduate student who has held such an appointment, requiring service to the University of at least 25 percent of full time, for each of two consecutive semesters will be eligible for a waiver of tuition for the summer session immediately following the two consecutive semesters of service. In no case shall the additional term of tuition waiver be granted before the two consecutive semesters of service have been completed.

This additional term of tuition waiver shall not apply to nonservice appointments or appointments normally awarded for 12 or more consecutive months (i.e., special doctoral assistantships, graduate or special fellowships). NDEA (Title IV) fellows, NSF trainees, and NSF fellows are not eligible.

NDEA (Title IV) fellows and NSF trainees do not pay fees, assessments, or tuition.

Faculty and Staff

Employees in faculty-administrative positions will receive a tuition waiver and a waiver of some fees whenever they are employed at any time during a semester for which they are registered. If the appointment is at least a nine-month appointment, students may receive the waiver for an addi-

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tional semester which must follow immediately the last semester of appointment. Students may option summer or fall in this instance.

Civil Service

Employees in civil service positions will receive a tuition waiver and a waiver of some fees only when authorized by the Personnel Office after compliance with personnel regulations.

Auditing of Courses

Students may register for courses in an *audit* status. They receive no letter grade and no credit for such courses. An auditor's registration must be marked accordingly. They pay the same fees as though they were registering for credit. They are expected to attend regularly and are to determine from the instructor the amount of work expected of them. If auditing students do not attend regularly, the instructor may determine that the students should not have the audited courses placed on their record cards maintained in the Office of Admissions and Records. Students registering for a course for credit may change to an audit status or vice versa only for fully justified reasons. See the Registration Calendar for dates.

Pass/Fail Option

The pass/fail option applies only to undergraduate instruction. Pass/fail courses are not available for graduate credit.

Courses offered under the pass/fail option are denoted in the listing of course offerings by "Elective Pass/Fail" or "Mandatory Pass/Fail."

A student taking a course for pass/fail should have his registration marked accordingly.

A student may change to or from pass/fail grading as indicated in the Registration Calendar with an adviser's approval. After that time until the last day to make a program change, he will be permitted to change *from* pass/fail to regular grading with an adviser's approval or *to* pass/fail from regular grading with his dean's approval.

Students are not permitted to elect pass/fail for a course that is a major or minor requirement for them unless the program specifically permits such to be done.

Independent Study Courses

Courses such as special problems, independent research, thesis, etc., involving an individualized instructional format are in the class listing with a section number of "700." Prior to registering in a course of this type, the student must determine the "instructor number" for the faculty member responsible for the student's instruction. That three-digit instructor number, along with the class's printed call number and the instructor's last name, must be indicated on the Course Request Form or Program Change Form at the time of registration. All students should obtain the permission of the individual instructor before registering for such courses. The adviser for students in graduate degree programs will be responsible for determining that the student has the permission required.

A listing of faculty within instructional programs along with each assigned instructor number may be found in the appendix of this book.

Public Service Courses

Public Service Courses are intended to serve persons not necessarily formally enrolled in a degree program at Southern Illinois University at

Carbondale, and whose backgrounds are rather homogenous but whose time constraints do not allow them to attend a similar course during a regular academic semester. Public Service Courses are scheduled to meet no longer than three weeks and are listed in the Schedule of Classes with a section number in the range 601–699.

Program Changes

Students are officially registered only for those courses appearing on their schedule of classes. Any change therefrom must be made through an official program change, which includes the following steps:

1. *Initiating the change.* Students report to their advisers for approval and Program Change form completion. If the change involves only that of changing sections within the same course, this may be done at the Registration Center without the necessity of adviser approval.
2. *Registration.* Students must take the program change form to the Registration Center after approval by the adviser.

Program changes which involve the adding of a new course to the schedule or the changing of sections must be done by the “last day to add a class” as indicated in the Registration Calendar.

Changing Credit Within Variable Hour Courses

Students who wish to change the number of hours of credit within a variable-hour course must process a Program Change Form listing the course and current hours of credit in the drop portion of the form and again in the add portion of the form for the desired number of hours of credit.

Dropping a Course

A program change must be made in order to drop a course. A student may not drop merely by stopping attendance. The last date for dropping a course by an undergraduate student without receiving a letter grade is printed in the Registration Calendar. Graduate students may not necessarily receive a grade for dropping after this date. (Refer to Registration Calendar.)

Changing Fee Status, and Refunds

Students making program changes which result in their moving from one fee status to another will be assessed additional tuition and fees when appropriate. If the change is to reduce the academic load resulting in a lower tuition and fee status, students may apply for the appropriate tuition and fee refund provided the reduction in program is made officially by a program change during the same period at the start of a semester in which students withdrawing from the University are eligible for a refund. For dates refer to the Registration Calendar.

Withdrawing from School

A student who finds it necessary to withdraw from school while the semester is in progress must report to the Student Life Office to initiate official withdrawal action. Graduate students may also initiate withdrawal at the Graduate School. No withdrawal will be permitted during the last two weeks of a semester (last week of an eight-week summer session), except under exceptional conditions. A refunding of fees is permitted only if a withdrawal is officially completed by the deadline stated in the Registration Calendar.

A student who advance registers, including paying of fees, and then finds that he cannot attend school must also officially withdraw from

school. He may do this by writing to the Student Life Office. This must be done by the deadline date printed in the Registration Calendar, if he expects to get a refund.

Cancellation of Registration

An advance registration including the payment of tuition and fees may be considered invalid if the student is declared to be ineligible to register due to scholastic reasons. The same situation may exist due to financial or disciplinary reasons if certified to the Office of Admissions and Records by the Student Life Office.

Personal Data Changes

At the time of registration students are asked to review a Biographic Data Sketch containing personal data. Certain items, if in error, may be corrected at that time. Other items which may require some type of verifying evidence, are changed by reporting to the offices listed below.

1. *Local Address Change*.—Office of Admissions and Records, Registration Center, Graduate School.
2. *Name Change, Marital Status Change, Date of Birth Change*.—Records Section of the Office of Admissions and Records. Verification may be required.
3. *Legal Residence Change* (whether an Illinois or out-of-state resident).—Must be requested by completion of the *Application to be Classified an Illinois Resident* form in the Office of Admissions and Records. Before the change is made the student must have met the regulations governing residency status as established by the Board of Trustees.
4. *Change of College or Major*.—Advisement center or dean's office.

2

Workshops and Concentrated Courses



Child and Family

Workshop: Family Life—Then and Now. (Child and Family 408–3, Section 401) July 5–18. A study of changes that have occurred in home and family life over significant periods in American history, presented in light of economic, political and social change. Topics covered: establishing the family unit, child rearing and discipline, nutrition, clothing, shelter, bartering, health, transportation, communication, and community life. Class participation, demonstrations of early home skills, lectures, films, and a weekend site visit to Fort deChartres for the French-Indian Rendezvous are all part of the course. Formerly, this was a bicentennial course entitled “Family Spirit of ’76.” Instructor: Melva F. Ponton.

Workshop: Child Abuse and Neglect. (Child and Family 408, Section 402) June 20–July 1. This workshop will deal with the eight general definitions and identification of child abuse/neglect, and its causes. Child abuse and maltreatment is a community responsibility. Therefore, an inventory of programs to ascertain the degree to which they meet local needs of families and parents will be explored. A survey of the patchwork complexities of agencies and laws will be conducted. Most abusing parents are capable of loving the children they harm and often experience great guilt and remorse about their abusive behavior. A review of child discipline methods is planned to alleviate and soften the expression of inner fury by parents. Child development ages and stages will be taught to create an awareness and understanding of behavior patterns. Methods of reaching apprehensive, guilt-ridden parents will be explored. Sources of help will be identified and interviewed, such as child protective agencies, creating an understanding response rather than harsh, condemnatory responses. Only with the application of objective, enlightened policies can treatment, research, prevention and education be successfully performed. An attempt to reverse the attitude of the public toward parents seen as cruel perpetrators must be made. Instructor: Jennie Y. Jones.

Cinema and Photography

Advanced Topics in Cinema and Photography: Feature Film Workshop. (Cinema and Photography 470A–3, Section 301) June 13–July 8. An examination of the problems and potentials of feature film production by students. Instructor: Michael Covell.

Advanced Topics in Cinema and Photography: Experimental Workshop: Theory and Practice. (Cinema and Photography 470A-3, Section 302) July 11–August 6. An examination of experimental film form from theoretical and practical perspectives. Instructors: Michael Covell and Steven Fagin.

Curriculum, Instruction, and Media

Environmental Education (Curriculum, Instruction, and Media 509-3, Section 401 and Curriculum, Instruction, and Media 593o-2, Section 401) June 13–July 1. A study of the techniques for improving the instruction of Environmental Education in the public schools. Classroom activities and field trips will be a basic part of the workshop. Instructor: Harold Hungerford.

Children's Literature Workshop (Curriculum, Instruction, and Media 498c-2, Section 501) June 5–June 11. A study of the folklore of children's literature. Instructor: Margaret Matthias.

Classroom Teaching With Television (Curriculum, Instruction, and Media 458-3, Section 401) July 25–August 5. It is an examination of the utilization techniques of broadcast television in the classroom. Instructor: Charles Klasek.

Elementary Mathematics Education Workshop (Curriculum, Instruction, and Media 498E-3, Section 401) June 27–July 8. A study of the techniques for teaching elementary mathematics. Instructor: Ann Karmos.

Instructional Improvement Workshop (Curriculum, Instruction, and Media 498M-3, Section 401) July 25–August 5. A study of the techniques for improving instruction in the secondary schools. Instructor: Carol Jacko.

Family Economics and Management

Housing for the Elderly. (Family Economics and Management 407-3, Section 502) June 13–24. The objective of the workshop is to study the relation between the aging process and factors in the physical environment that interact with this process. The topics covered include: considerations in human developments; aging/environment relationships; aging/environment theory; design criterion for housing the elderly. Course format will be discussion-oriented with guest speakers, films, and field trips being incorporated at appropriate times. Instructor: Jane Kearn.

Education for Consumers in the Marketplace. (Family Economics and Management 407-2, Section 501.) Dates to be arranged. An in-service institute for consumer education teachers in secondary schools. The institute will focus on key learning processes and techniques for motivating student achievement in financial management, consumer credit, and basic economics of the marketplace. Instructor: Thomas M. Brooks.

Finance

Real Estate. (Finance 328-3, section 401) May 16– June 4. Problems of

real estate ownership, management, financing, and development. Instructor: Stan Tyler.

Higher Education

Student Financial Assistance. (Higher Education 535c-2, Section 401) June 13-24. Primarily of interest to administrators and counselors of student work and financial assistance, this course will examine federal, state and institutional policies and guidelines for work and assistance. Instructor: Roland Keene.

Academic Advising. (Higher Education 535e-2, Section 401) June 27-July 8. An examination of the role and function of the academic adviser and of the person responsible for coordinating the academic function of either a four-year institution or of a community college. Instructor: Jack Graham.

Home Economics Education

Workshop in Home Economics Education: Discipline and Classroom Management. (Home Economics Education 407-2) July 11-July 22. Development of a positive classroom climate, use and abuse of behavior modification, handling conflict situations. Planning and supervision to facilitate smooth operation, with emphasis on laboratory situations and mixed classes. Instructor: Dorothy Keenan.

Workshop in Home Economics Education: Current Trends in Home Economics Education. (Home Economics Education 407-2) July 25-August 5. Current trends in home economics programs. Possible effects of new legislation. Changes in philosophy and practices. Instructor: Dorothy Keenan.

Workshop in Home Economics Education: Value Clarification. (Home Economics Education 407-1) June 27-July 8. Theory and methods for implementing value clarification in the classroom. Emphasis will be given to the development of values and the evolving process and how to teach subject matter with focus on values. Instructor: Phyllis Bubnas.

Workshop in Home Economics Education: Working with Special Needs Learners. (Home Economics Education 407-1) July 11-July 15. Adjustments needed for working with the disadvantaged, gifted, behaviorally disturbed, mentally different. Stress placed on materials, media, motivation, and evaluation. Instructor: Rose Mary Carter.

Workshop in Home Economics Education: Teaching Boys in Home Economics. (Home Economics Education 407, Section 501) June 9-June 10. Sexism in programs as a concern of educators will be the focus. Adaptation of programs, plans, and materials will be stressed. Instructor: Rose Mary Carter.

Workshop in Home Economics Education: Home Economics for Elementary Teachers. (Home Economics Education 414-2) June 13-July 8. Identification and development of meaningful home economics related experiences appropriate for various levels of elementary curriculum. Trends affecting elementary programs. Instructor: Phyllis Bubnas.

Linguistics

Language Laboratories in EFL/ESL. (Linguistics 571-2, Section 401) May 22 to June 10. The theory and practice of the language laboratory in EFL/ESL pedagogy. Instructor: Charles Parish.

Mathematics

Topics for Teachers—Geometry: K-12. (Mathematics 411-2) June 13-24. A two-week workshop offered to elementary and secondary teachers. It will present such topics as properties of regular polygons; tessellations of the plane and 3-space; translations, rotations, and reflections; similarity and congruence; and other such topics which can be presented to school children of all ages. An emphasis will be placed on the use of manipulatives and classroom activities in studying the topics. Materials in the SIU Elementary Education Mathematics Laboratory will be available for use by workshop participants.

Music

Summer Music Theater. (Music 347-2 to 8; Music 568-2 to 8) June 13-August 5. Talented singers, actors, dancers, technicians, and instrumentalists come to the campus from colleges and universities throughout the nation for a summer of performing and instruction in the Broadway musical repertoire. Under the musical direction of Michael Hanes, the workshop is held in cooperation with the Department of Theater. Instructor: Michael Hanes.

Opera Workshop. (Music 346-2 to 8; 568-2 to 8) June 13-August 5. Students receive training in singing and acting techniques of opera and participate in public performances under the direction of Mary Elaine Wallace. Voice lessons are available from the voice faculty. Instructor: Mary Elaine Wallace.

University Chorale Concert Tour and Summer Travel/Study in Europe. The University Chorale will present a concert of American music in Zurich, Vienna, Venice, Milano, Marseille, Dijon, Paris, and Salzburg. The University Chorale will attend concerts in these major centers as well as rehearsals of other organizations when arrangements can be made. Correlation between art, architecture, literature, and music will be studied through lectures and visits to various museums and galleries. Those expecting graduate credit will be required to submit a document relating to the experience. Permission of the director, Professor Dan Pressley, is required to participate.

Church Music Workshop. (Music 453-2) June 13-24. Sessions explore choir rehearsal techniques, organ service playing, literature, basic conducting, teaching choral reading, vocal techniques, church choir organization and administration, children's choirs. Director: Charles Taylor.

Workshop in Music Business: Copyrights and Contracts. (CCFA 397A-2, section 401) July 11-22. The legal aspects of the music industry as regards to protection of artistic and musical properties. Instructor: Nick Koenigstein

Workshop in Performance and Analysis of Vocal and Instrumental Chamber Music. (Music 472-2, Section 401) June 27-July 8. The value of careful and detailed study of musical content in relationship to its actual performance. Emphasis on classroom performance. Instructors: Burt Kageff and Will G. Bottje

Advanced Topics in Instrumental Music. (Music 454-2, Section 401) July 25-August 5. The development of string programs in the schools, elementary through high school. For the beginning and advanced students. Class participation. Instructor: Anne Bakker

Jazz-Rock Workshop. The Jazz Rock Workshop will be for high school and college musicians to improve their skills in today's music. Arranging improvisation, small and large group playing will be featured. Major artists will participate as clinicians. Emphasis will be on current jazz-rock music such as that of Return to Forever, Tower of Power, Blood Sweat and Tears with the idea of developing practical skills for the talented musician. Director: Alex Valk.

Summer Music Study, London, England. (July 8-August 5) 2-5 hours of credit. Largely individually directed study, graduate and undergraduate, in private piano, music history-literature, and music theory. Consult Division of Continuing Education for details. Directors: Dr. Robert Mueller and Dr. Steven Barwick

Music and Youth at Southern Illinois University. July 11-22. From morning through evening high school musicians emerge themselves in music: participation in band, orchestra, chorus, piano class, jazz ensemble; classes in music theory, appreciation, special performing techniques, and instrument repair; recitals and concerts by student groups and faculty. A large staff of experts teach and conduct the activities. Director: Professor Melvin Siener

Physical Education for Men

Advanced Theory and Techniques in the Prevention and Rehabilitation of Athletic Injuries. (Physical Education for Men 407-2, Section 401) June 13-June 24. This course will present advanced theories and the application of scientific principles towards preventing and treating athletic injuries. It will cover both theoretical and practical methods including the use of modality and general procedures on training room operational functions. It will deal with theories behind the prevention and treatment of injuries as well as practices in massage use and physical therapy and the most recent innovations in athletic injury treatment. Instructor: Robert J. Spackman.

Psychology

Theory and Practice in the Preschool. (Psychology 459-3, Section 301) June 13-July 8. Designed for those who are preparing for or who are engaged in preschool education. Examines a variety of topics and provides lectures, demonstrations and practicum experience in the Child Study Cooperative Nursery. It will be offered on a four-week basis. Prerequisite: consent of instructor. Instructor: Shirley Dunagan.

Instrumentation in the Behavioral Sciences (Psychology 585-3, Section 302) June 13-July 8. A seminar designed to give enough training in basic electricity and electronics to develop an understanding of scientific instruments, an ability to communicate with technicians about equipment, and sufficient information to make minor equipment repairs. Prerequisite: consent of instructor. Instructor: Donald Meltzer.

The Psychology of Learning Applied to Teaching (Psychology 585-3, Section 301) June 13-July 8. A seminar designed to cover innovative instructional techniques and research related to those techniques. Prerequisite: consent of instructor. Instructor: Ronald Schmeck.

Gestalt Therapy. (Psychology 585-3, Section 304) June 13-July 14. The seminar will explore the history and development of Gestalt therapy; philosophical base, major constructs and assumptions; Gestalt personality theory; theory and process of therapy; techniques of therapy; role of the therapist and therapist style. Offered for advanced clinical, bioclinical, and counseling students in the Department of Psychology and to Counseling Center interns. Prerequisite: consent of instructors. Instructors: Gordon Rader and H. R. Miller.

Rational-Emotive Psychotherapy (Psychology 585-3, Section 303) July 11-August 5. The course will attract graduate clinical, bioclinical, and counseling students in the Department of Psychology who are interested in getting concentrated training in rational-emotive psychotherapy. The course will focus on presenting the philosophy and techniques of individual and group Rational-Emotive Psychotherapy with children and adults and the experimental evidence for its effectiveness. Some introduction to RET marital, family, and sex counseling will also be included. Prerequisite: consent of instructor. Instructor: Thomas R. Schill.

Recreation

Recreation Workshop in Puppetry. (Recreation 350B-1, Section 850) June 23, 24, 25. Current innovations and critical evaluation of methods, materials, and supervision of puppetry as an area of recreation program. Held in Mt. Vernon, Illinois. Instructor: Loren Taylor.

Recreation Workshop—Storytelling. (Recreation 350C-1, Section 850) July 21, 22, 23. Current innovations and critical evaluation of methods, materials, and supervision of storytelling as an area of recreation program. Held in the Chicago area. Instructor: Loren Taylor.

Recreation Workshop—Commercial Recreation. (Recreation 475A-2, Section 850) May 16-19. Critical examination and analysis of innovative programs and practices in commercial recreation. The workshop on commercial recreation will include an introduction to apartment, communities, theme parks, leisure service agencies, and hotel and cruise ship recreation programs. Held in the Chicago area. Instructor: Jean Loveland.

Recreation Workshop—Outdoor Education. (Recreation 475C-2, Section 850) Dates to be arranged. Critical examination and analysis of innovative programs and practices in outdoor education. To be held at Camp Ondessonk, Ozark, Illinois. Instructor: William Freeberg.

Recreation Workshop—Outdoor Recreation. (Recreation 475D-2, Section 851) May 17-20. Critical examination and analysis of innovative programs and practices in outdoor recreation. To be held at Eleven Point River, Missouri. Instructors: William R. Abernathy and Owen Smith.

Recreation Workshop—Outdoor Recreation. (Recreation 475D-2, Section 850) May 15-25. Critical examination and analysis of innovative programs and practices in outdoor recreation. To be held at Brandon Springs, Kentucky. Instructor: Douglas McEwen.

Recreation Workshop—Playground Leadership. (Recreation 475M-2, section 850) Dates to be arranged. Critical examination and analysis of innovative programs and practices in playground leadership. To be held at Camp DuBois, DuBois, Illinois. Instructor: William Freeberg.

Recreation Workshop—Maintenance of Areas and Facilities. (Recreation 475N-2, Section 501) May 27-30. Critical examination and analysis of innovative programs and practices in the maintenance of areas and facilities. Instructors: William R. Abernathy and Loren Taylor.

School of Technical Careers, Applied Technologies

Workshop in Automotive Technology: Advanced Tune-up and Emission Control. (STC 350-2, Section 401) June 20-July 1. Advanced study of theory of operation, diagnosis, and service of electronic and conventional ignition systems, emission controls and fuel systems. Laboratory activities will include the use of electronic test equipment in the service of these systems, on live vehicles. Instructor: David Dettman.

Workshop in Automotive Technology: Automatic Transmissions (STC 350-2, Section 402) July 11-22. A study of the more popular three speed automatic transmissions on current production automobiles. Instruction will include torque converter design, power flow, oil circuitry, complete disassembly, reassembly, and performance testing of each transmission studied on a Storm-Vulcan transmission dynamometer. On-car minor service and adjustments will also be stressed. Instructor: Joseph Albert.

Workshop in Photography for Vocational Educators: Black and White Photography (STC 350-2, Section 403) June 20-July 1. Instruction in camera handling, lighting, film processing, and printing. Laboratory exercises provide an opportunity to practice specialized techniques. Participants must provide a fully-adjustable camera. A list of supplies not exceeding \$20 may be obtained from the instructor. Prerequisite: consent of instructor. Instructor: Ed Delmastro.

Workshop in Photography for Vocational Educators: Color Photography (STC 350-2, Section 404), July 11-22. Instruction of production of color slides, reversal processing, processing defects, slide duplication, and color balance. Participants must provide a fully-adjustable camera. A list of supplies not exceeding \$20 may be obtained from the instructor. Prerequisite: consent of instructor. Instructor: Robert White.

Workshop in Machine Tool and Manufacturing Processes: Numerical Control and Electrical Discharge Machining (STC 350-2, Section 405),

June 20–July 1. A workshop covering the theories and applications of electrical discharge machining and numerical control machining. Familiarization and operation of an ELOX, twenty amp, EDM machine and a Cintimatic NC milling machine will be emphasized. Instructor: Lelon Traylor.

Special Education

Introduction to Special Education. (Special Education 400–3, Section 401) June 13–24. Physical, mental, emotional and social traits of all types of exceptional children. Effects of handicaps in learning situations. Methods of differentiation and techniques for rehabilitation. Case studies, observations, and field trips may be required. Instructor: Norma Ewing.

Problems and Characteristics of the Behavior Disordered Child. (Special Education 401–3, Section 401) June 27–July 8. Diagnosis, screening, classroom management, placement considerations, goals, and the effective use of ancillary services for school children who are emotionally disturbed or socially maladjusted. Emphasis on the understanding of maladaptive behavior through principles of learning and behavior. Instructor: Kristen Juul.

Problems and Characteristics of the Learning Disabled Child. (Special Education 404–3, Section 401) July 11–22. Behavioral, emotional, physical, and learning characteristics of children with learning disabilities. Emphasis on receptive and expressive modalities for learning; theories dealing with causes and management. Instructor: Tosh Hisama.

Introduction to Education of the Preschool Handicapped Child. (Special Education 405–3, Section 401) July 11–22. Introduction to the education of preschool handicapped children. A specific focus on classroom procedures for enhancing delayed development including classroom organization and planning. Instructor: James Teska.

Assessment and Remedial Planning for the Preschool Handicapped Child. (Special Education 412–3, Section 401) July 11–22. An introduction to the assessment of preschool handicapped children including the specifics of screening, tests used by the classroom teacher and observational procedures. A charge of \$5 for testing materials is required. No textbook is required. Instructor: Robert Stoneburner.

Methods and Materials for Teaching Elementary Level Behavior Disordered Children. (Special Education 417–2, Section 401) June 13–24. Focuses on the major psychoeducational procedures used with behaviorally disordered children. Includes field trip, meeting with parents, and resource persons from schools and agencies. Instructor: Kristen Juul.

Methods and Materials for Teaching Elementary Level Learning Disabled Children. (Special Education 419–2, Section 401) July 25–August 5. Focuses on the major psychoeducational strategies used to teach learning disabled children. Instructor: Tosh Hisama.

Home-School Coordination in Special Education. (Special Education 425–2, Section 401) July 11–22. Consideration of the techniques used in parent

interviews, conferences, and referrals by school personnel with parents of handicapped children. Instructor: Wyatt Stephens.

Work-Study Programs for Handicapped Adolescents to Age 21. (Special Education 430-2, Section 401) June 27-July 8. Deals with modifications of and additions to school programs to insure that they are appropriate to the needs of the mildly handicapped adolescent. Includes detailed coverage of joint work-study programs as preparation for vocational adequacy. Instructor: Norma Ewing.

Special Education Research Problems. (Special Education 500-3, Section 501) June 27-July 8. Research design and methodology in special education. Instructor: Robert Stoneburner.

The Atypical Child and Social Agencies. (Special Education 517-2, Section 401) July 25-August 5. A survey of social agencies contributing to the welfare and care of exceptional children. Emphasis given to services rendered and to method of contact and cost. Specialists invited to appear before the class. Instructor: James Crowner.

Workshop—Assessment and Remedial Planning for the Special Needs Child in the Regular Classroom. (Special Education 518-3, Section 403) June 13-24. Instructor: Richard Brecht.

Workshop—Programming for the Gifted Child. (Special Education 518-3, Section 402) June 13-24. Instructor: John Casey.

Workshop for Regular Class Teachers on Mainstreaming Handicapped Children. (Special Education 518-3, Section 401) June 27-July 8. Mainstreaming for regular class teachers—issues and procedures involved in implementation of least-restrictive, alternative placement. Instructor: Howard Morgan.

Workshop—Law and Litigation for the Handicapped. (Special Education 518-3, Section 404) June 13-24. A look at Illinois law and litigation and the implication for education of the handicapped. Instructor: Howard Morgan.

Master's Seminar: Issues and Trends in Special Education. (Special Education 580-3, Section 401) July 25-August 5. Instructor: James Teska.

Speech

Communication and Social Process. (Speech 362-3, Section 301) June 13-July 8. Introduction to the phenomenology of human communication and social process. Analysis and description of interpersonal communication in the development and operating of human communities. Special emphasis is given to the nature of persons, consciousness, and communication exchange in society. Instructor: Marvin Kleinau.

Political Communication. (Speech 451-3, Section 301) July 11-August 3. (Same as Political Science 418). A critical review of theory and research which relate to the influence of communication variables on political values, attitudes, and behavior. Prerequisite: 358 or consent of instructor. Instructor: Keith Sanders.

Studies in Organizational Communication. (Speech 480-3, Section 301) July 11-August 3. Study of communication systems and behavior within organizations. Demonstrates the relevance of communication to management operations, networks, superior-subordinate relations, production, employee morale, and organizational climates through the study of theory and research. Instructor: Mary Lou McCauliff.

Vocational Education Studies

Workshop in Cooperative Vocational Education: Introduction to Cooperative Vocational Education, VES 425-3, June 6-June 10. The workshop will be conducted from 8:00 A.M. to 5:00 P.M. each day. Those participants who elect to take the workshop for credit must also complete assigned instructional modules and successfully complete a final examination. Successful completion of this workshop is part of the qualification requirements for teacher-coordinators in the State of Illinois.

3 Residence Center Courses and Off-Campus Courses

Kaskaskia College Graduate Residence Center

Curriculum, Instruction and Media

- 498I-3 Workshop in Elementary Education
- 508-3 Supervision of Professional Educational Experiences
- 585I-3 Seminar in Elementary Education

Educational Leadership

- 511-3 Curriculum Organization
- 533-3 Elementary School Principalship

Brandon Springs, Kentucky

Recreation

- 475D-2 Workshop—Outdoor Recreation

Chicago, Illinois

Recreation

- 350C-1 Recreation Workshop—Storytelling
- 475A-2 Commercial Recreation

Dubois, Illinois

Recreation

- 475M-1 to 2 Workshop—Playground Leadership

Mt. Vernon, Illinois

Recreation

- 350B-1 Recreation Workshop—Puppetry

Ozark, Illinois

Recreation

- 475C-2 Workshop—Outdoor Education

Springfield, Illinois (M.I.F.)

Thermal and Environmental Engineering

- 592-1 to 3 Special Investigation in Engineering

Western Springs, Illinois

Curriculum, Instruction and Media

- 585B-3 Seminar

Eleven Point River, Missouri

Recreation

- 475D-2 Workshop—Outdoor Recreation

Red Lodge, Montana

Botany

- 448-6 Field Studies in the Western United States

Washington, D. C.

Curriculum, Instruction and Media

- 585G-3 Seminar in Education

Western United States

General Studies—Area A

- 240-3 Ecology and Man

Zoology

- 496-3 Zoology Field Studies

Cornwall, England

Educational Leadership

- 596-1 to 3 Independent Investigation

London, England

General Studies—Area C

- 100-2 Music Understanding
- 206-3 Music as a Creative Experience

Music

- 102-2 Survey of Music Literature
- 140Q-1 to 2 Applied Music (Piano)
- 240Q-1 to 2 Applied Music (Piano)
- 321-2 Form and Analysis
- 340Q-1 to 2 Applied Music (Piano)
- 357A-3 Music History
- 357B-3 Music History
- 440Q-1 to 2 Applied Music (Piano)
- 473-2 Piano Literature
- 481-1 to 4 Readings in Music Theory
- 482-1 to 4 Readings in Music History
and Literature
- 499-1 to 4 Independent Study
- 540Q-1 to 2 Applied Music (Piano)
- 570-3 History of Opera
- 595-2 Music Document
- 599-2 Thesis

Italy

Art

- 327-3 Renaissance Art
- 499-3 Individual Problems

Nigeria

Social Welfare

- 421-3 Seminar in Problems and Issues
in Social Welfare

Xalapa, Mexico

Spanish

- 371-2 Latin American Civilization
- 375-2 Study in Spain or Latin America
- 490-1 to 3 Readings in Spanish

University Studies

- 388-1 to 4 International Studies

European Travel and Study

Chemistry

- 396A-2 Chemical Problems
- 396B-2 Chemical Problems
- 489-1 Special Topics in Chemistry
- 491-2 History of Chemistry
- 594F-2 to 3 Special Readings in
Chemistry—History of
Chemistry

Music

- 499-5 to 6 Independent Study

4 Schedule of Classes

THIS CHAPTER is arranged in two parts:

1. General Studies Courses.
2. Departmental Courses.

Within each part, the subject areas in which courses are being offered are listed in alphabetical order by name. (The table of contents on pages ii and iii exhibits the subject areas and their page numbers).

Within each subject area, the courses are listed in order by course number. For each course, the first line contains the course number, its short title, number of semester hours of credit, and pass/fail information if applicable.

Within each course, sections are listed in numerical order. The entry for a typical section includes a call number, section number, beginning time, meeting days and place, and the instructor's last name.

A brief discussion of each type of information listed in this schedule follows.

Title Line

First is the course number. It is a three-digit numeral plus, in some cases, a single letter. It identifies the course and indicates the academic classification of the course as follows:

- 000-099 Course not properly in the following categories
- 100-199 For freshmen
- 200-299 For sophomores
- 300-399 For juniors and seniors
- 400-499 For seniors and graduate students
- 500-600 For graduate students only

Next is the short title. For the full title and the course description, refer to the Undergraduate Catalog or the Graduate Catalog.

At the end of the title line is the number of hours of credit awarded for completion of the course. All references to hours of credit imply semester hours unless otherwise specified. One semester hour is equivalent to one and one-half quarter hours.

In a variable-hour course, the student decides the number of hours for which he is going to register in consultation with his adviser.

Courses offered under the pass/fail option are footnoted after the hours of credit. See chapter 1 for further comments on this option.

Prerequisite

The prerequisite entry lists requirements which must be satisfied before a student registers for the course. These prerequisites may be listed in various ways. Usually they are other courses in the same subject area, indicated by a course number. A prerequisite in another area is indicated by that area's code letters and the course number.

Call Number and Section Number

Each section number is preceded by a unique call number, which is a four-digit numeral. Both the call number and the section number must be entered after the appropriate subject-area abbreviation and the course number on the student's Course Request Form or Program Change Form at the time of registration. The section number categorizes course offerings as follows:

- 001-099 Meets 13-16 weeks
- 101-199 Meets 9-12 weeks
- 201-299 Meets 7 or 8 weeks
- 301-399 Meets 4-6 weeks

401-499	Meets 2 or 3 weeks
501-599	Meets less than 2 weeks
601-699	Public Service
700	Independent Study
800-899	Off-campus

Time and Days

The times given indicate the beginning and ending of each class period. If no ending time is specified, then it is 50 minutes after the beginning time. Those registering for courses listed as “To be arranged” may obtain times and days from the instructor indicated or, if no instructor is listed, from the department.

Building and Room Number

The following list of building abbreviations will help in the location of classrooms. Buildings are listed alphabetically according to the code used in the class schedule. Temporary buildings are indicated by number only.

If a building contains more than one classroom, then the number of the room follows the building’s code name.

CODE:	BUILDING NAME	GRID	NO.
Ag:	Agriculture Building	J-4	26
Allyn:	Allyn Building	J-5	3
Altg:	Altgeld Hall	J-6	2
Anthon:	Anthony Hall	I-6	5
Arena:	SIU Arena	G-4	41
Avtech:	So. Ill. Airport		*
Bailey:	Bailey Hall (T.P.)	I-4	28
Boat:	Boat Dock	H-4	78
Center:	Student Center	I-5	45
Cl:	General Classrooms	L-5	46
Comm:	Communications	L-4	51
Faner:	Faner Hall	J-5	96
Flight:	So. Ill. Airport		*
Grassy:	Little Grassy Lake		*
Gym:	Davies Gymnasium	J-6	7
Hdball:	Handball Courts	F-4	70
H Ec:	Home Economics	K-6	42
Kaskas:	Kaskaskia College		*
	Residence Center		*
Lawson:	Lawson Hall	K-4	47
Lake:	Lake on the Campus	I-3	
Lib:	Morris Library	J-5	25
Lingle:	Arena Classrooms	G-4	40
Logan:	John A. Logan College		*
LS I:	Life Science I	K-4	17
LS II:	Life Science II	K-4	52
L-ApS:	Physical Plant	G-5	56
M.I.F.:	Medical Instructional		*
	Facilities, Springfield		*
Nkrs A:	Neckers Bldg. A	H-4	65

Nkrs B:	Neckers Bldg. B	H-4	64
Nkrs C:	Neckers Bldg. C	H-4	63
Park:	Parkinson Building	J-5	4
Pull:	Pulliam Hall		
	(University School)	K-6	23
Pull I:	Pulliam Hall		
	(Industrial Ed. Wing)	K-5	21
Pull P:	Pulliam Hall		
	(Physical Ed. Wing)	L-5	22
Rend L:	Rend Lake College		*
S. East:	Southeastern Illinois College		*
Shawne:	Shawnee College		*
Shry:	Shryock Auditorium	J-5	6
Stad:	McAndrew Stadium	H-5	13
Tech A:	Tech. Bldg. A	H-4	71
Tech B:	Tech. Bldg. B	H-4	72
Tech D:	Tech. Bldg. D	H-4	74
Tennis:	Tennis Courts	G-4	84
Wabash:	Wabash Valley College		*
	Residence Center		*
Wham:	Wham Ed. Bldg.	L-5	44
Whlr:	Wheeler Hall	J-6	8
Woody:	Woody Hall	K-6	24

Temporary Buildings

CODE	LOCATION	GRID	NO.
0415	807 S. Forest	M-5	415
0473	805 S. Oakland		*
0549	428 S. Washington	K-7	549
0551	CESL, Barrack T-42	J-5	551
0552	CESL, Barrack T-41	J-5	552
0555	Old Baptist Foundation	J-6	555
0595	408 W. Mill	L-6	595
0605	703 S. Washington	K-7	603
0720	Washington and Park	I-7	720
0721	East of 0720 on Park	I-7	721
0831	Farm Machine Shop— between Neckers Building and the Forestry Research Laboratory	I-4	831
0832	Next to 0831 (above)	I-4	832

VTI Campus Buildings

Buildings coded F, H, L, M, and N are on the VTI Campus, location of some programs of the School of Technical Careers.

Instructor’s Name

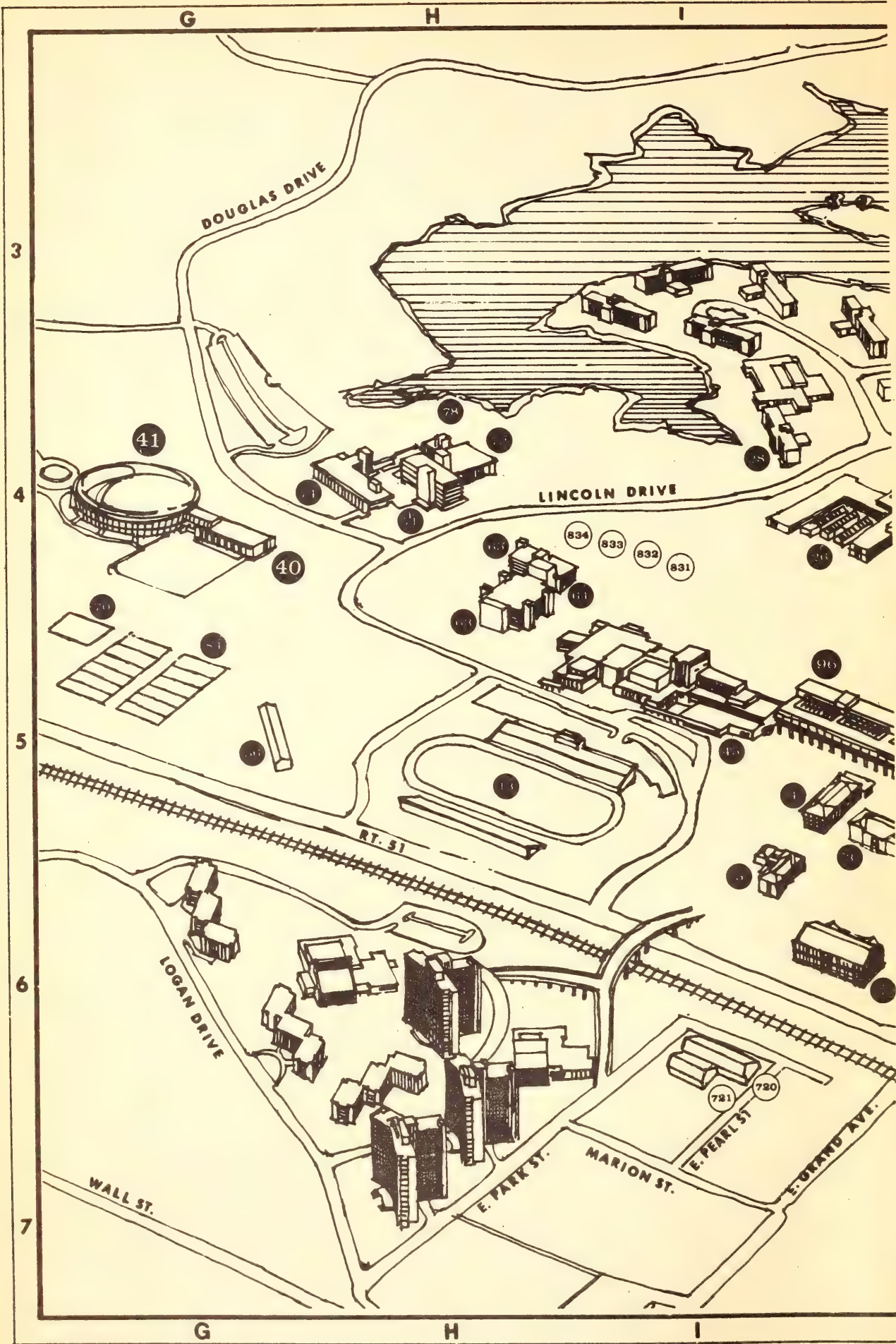
Only the last name is listed here. Each of the University’s catalogs contains an extensive list of members of the faculty, their degrees, and related information.

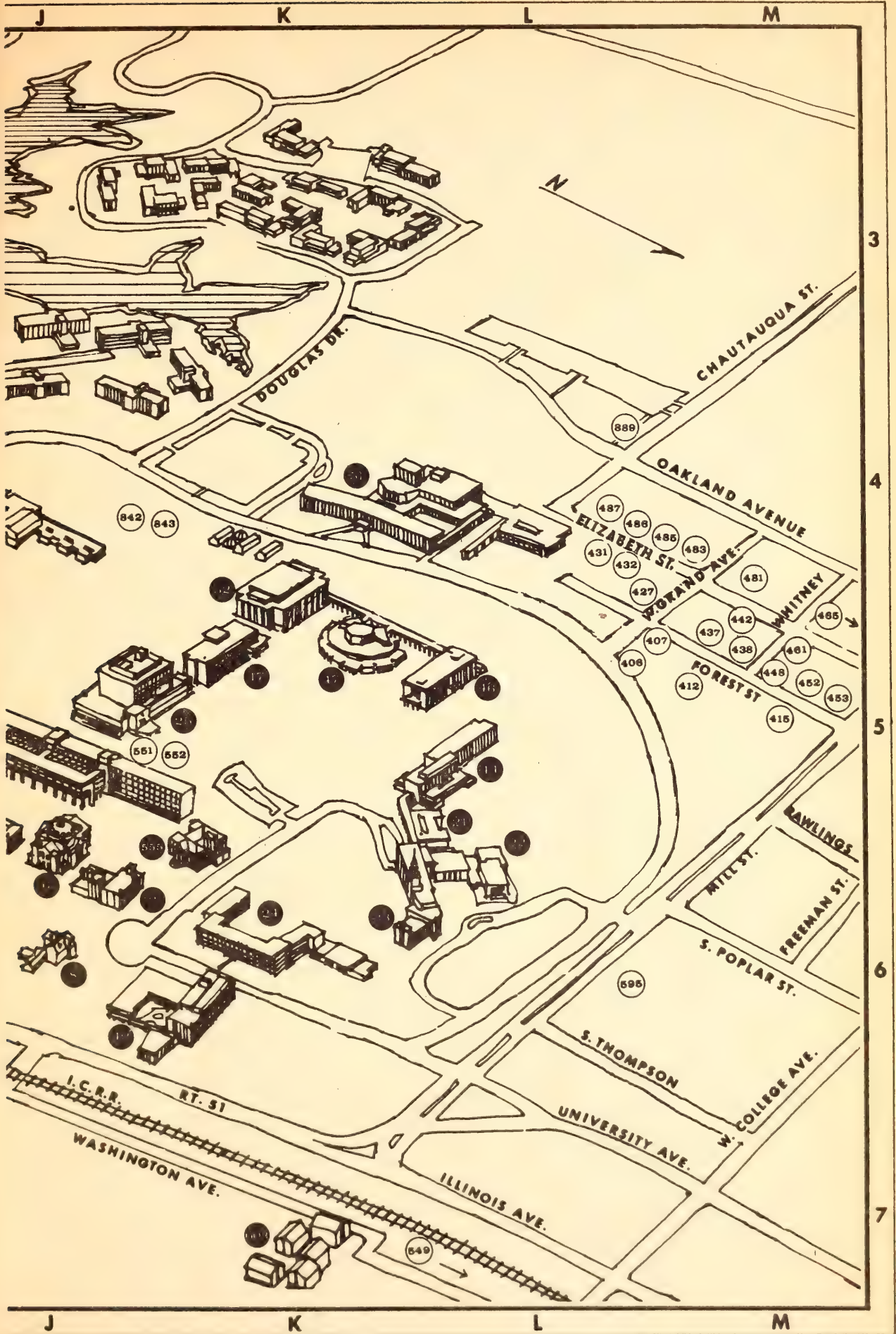
To register for section 700, refer to the instructions in chapter 1 under the heading “Independent Study Courses” and also to the instructors’ numbers listed in the appendix at the end of this book.

* Not shown on the map.

General Studies Courses and Their Parent Departments or Programs

GSA		GSB		GSC		GSD	
COURSE NO.	PARENT DEPT. OR PROGRAM	COURSE NO.	PARENT DEPT. OR PROGRAM	COURSE NO.	PARENT DEPT. OR PROGRAM	COURSE NO.	PARENT DEPT. OR PROGRAM
101	Physics	103	Geography	399A	Interdept.	101	English
106	Chemistry	104	Anthro- pology	100	Music	104	Linguistics
107	Chemistry			101	Art	106	Mathe- matics
110	Geology	105	History	102	Philosophy		
115	Biology	109	Black Amer- ican Studies	104	Philosophy	107	Mathe- matics
125	Interdept.			107	Recreation		
202	Physics	112	Economics	109	Black American Studies	110	Economics
208	Physiology	125	Interdept.			112	Mathe- matics
209	Physiology	135	Interdept.				
211	Geology	160	Journalism	200	Speech	113	Mathe- matics
220	Interdept.	202	Psychology	201	English		
221	Interdept.	203	Sociology	202	English	117	English
230	Interdept.	206	Child & Family	203	Theater	118	English
240	Botany			204	Art	119	English
302	Psychology	207	Political Science	205	Design	152	Speech
303	Botany			206	Music	153	Speech
312	Zoology	211	Economics	207	Philosophy	199A	Library
313	Zoology	212	Political Science	208	Philosophy		
314	Zoology			209	English	GSE	
321	Geology	220	Interdept.	210	English	COURSE NO.	PARENT DEPT. OR PROGRAM
322	Geology	221	Interdept.	212	Philosophy	100-	
323	Geology	230	Anthro- pology	214	Philosophy	106	Physical Ed- ucation for Men
324	Geology			216	Religious Studies		
330	Geography	231	Educational Admin.	217	Religious Studies	110-	
356	Engineering Mechanics	250	Political Science	221	Interdept.	114	Physical Ed- ucation for Women
361	Music	255	Geography	231	Foreign Lang.	201	Health Ed.
399A	Interdept.	270	Political Science	232	Foreign Lang.	236	Food & Nutrition
		299C	Interdept.	299E	Interdept.	240	Health Ed.
		299D	Agriculture	317	English		
		299E	Interdept.	325	English		
		300	History	330	Foreign Lang.		
		301	History	335	English		
		305	Finance	349	Cinema & Photography		
		310	Journalism	363	Philosophy		
		311	Economics	365	English		
		321	Sociology	371	Music		
		325	Sociology	390	Philosophy		
		330	Linguistics	393	English		
		341	Sociology	399A	Interdept.		
		346	Family Econ.				
		378	Political Science				





SCHEDULE OF
GENERAL STUDIES
COURSES

General Studies Area A—Man’s
Physical Environment and Biological
Inheritance (GSA)

Course No.		Course Title		Semester Hours of Credit			
Call No.	Sect. No.	Time	Days	Building	Room	Instructor's Name	
101 INSIGHT-HI-FI,LASER							03.0 Cr
7391	201	11.00	MTWTh	Nkrs B	440	Cutnell J	
		01.20-03.30	T	Nkrs C	407		
7392	202	11.00	MTWTh	Nkrs B	440	Cutnell J	
		08.40-10.50	Th	Nkrs C	407		
7393	203	11.00-12.00	MTWTh	Nkrs B	440	Cutnell J	
		01.20-03.30	Th	Nkrs C	407		
106 CHEM - NON-SCI MAJ							03.0 Cr
6232	201	11.00-12.00	MTWThF	Nkrs B	240		
110 EARTH SCIENCE							03.0 Cr ¹
6823	201	08.40-09.40	M W F	Park	124		
		12.10-02.20	M	Park	213		
6824	202	08.40-09.40	M W F	Park	124		
		12.10-02.20	W	Park	213		
6825	203	08.40-09.40	M W F	Park	124		
		12.10-02.20	F	Park	213		
115 BIOLOGY							03.0 Cr ¹
6174	201	11.00-12.00	M W F	Lawson	221		
		12.10-02.20	T Th	LS II	423		
6175	202	11.00-12.00	M W F	Lawson	221		
		02.30-04.40	T Th	LS II	423		
6176	203	11.00-12.00	M W F	Lawson	221		
		08.40-10.50	W F	LS II	423		
202 SPACE SCI-ASTRONOMY							03.0 Cr ¹
7394	201	09.50-10.50	TWThF	Lawson	231	Sanders F	
To be arranged							
Occasional evening observation laboratory							
208 LAB EXPER IN PHSL							01.0 Cr
Prereq: Concurrent enrollment in GSA 209							
7413	201	09.50-12.00	T	LS II	146	Mickus J	
7414	202	09.50-12.00	W	LS II	146	Mickus J	
7415	203	09.50-12.00	Th	LS II	146	Mickus J	
209 PRINCIPLES OF PHSL							03.0 Cr ¹
Prereq: A background in biological science recommended							
7416	201	08.40-09.40	MTWThF	Lawson	101	Mickus J	
221 SURVIVAL OF MAN							03.0 Cr
6001	201	08.40-09.40	MTWTh	Lawson	141		
		08.40-09.40	F	Ag	224		
6002	202	08.40-09.40	MTWTh	Lawson	141		
		09.50-10.50	T	Pull	39		
6003	203	08.40-09.40	MTWTh	Lawson	141		
		11.00-12.00	Th	Wham	328		
6004	204	08.40-09.40	MTWTh	Lawson	141		
		08.40-09.40	F	Faner	1224		
6005	205	08.40-09.40	MTWTh	Lawson	141		
		09.50-10.50	Th	Ag	154		
6006	206	08.40-09.40	MTWTh	Lawson	141		
		08.40-09.40	F	Nkrs A	278		
6007	207	08.40-09.40	MTWTh	Lawson	141		
		08.40-09.40	F	Pull	39		
230 ENERGY & THE FUTURE							03.0 Cr
6008	201	11.00	MTWThF	Tech A	111		
240 ECOLOGY AND MAN							03.0 Cr ¹
6184	201	01.20-02.20	MTWThF	Lawson	231	Voigt J	

6185	850	To be arranged			W/U.S.		
Above section meets May 14 - June 12							
302 PSYCHOBIOLOGY							03.0 Cr
7474	201	02.30-03.30	MTWThF		Lawson	231	
303 FERN,TREE,WILD FLWR							03.0 Cr
6186	201	08.40-12.00	T Th		Green	101	
		08.40-09.40			F	LS II	450 Mohlenbrock
6187	202	08.40-12.00	M W		Green	101	
		08.40-09.40			F	LS II	450 Mohlenbrock
6188	203	01.20-04.40	T Th		Green	101	
		08.40-09.40			F	LS II	450 Mohlenbrock
313 EVOLUTION							02.0 Cr
7866	201	07.30-09.00	T Th		Ag	214	
330 WEATHER							03.0 Cr ¹
6803	201	To be arranged					
Report to Self Instruction Center Morris Lib Room 112							
356 CREAT IN SCI & TECH							03.0 Cr
6669	201	09.50-10.50	MTWThF		Lawson	131	
361 ACOUSTICS OF MUSIC							03.0 Cr
7155	201	09.50-10.50	MTWThF		Lawson	151	Gordon R

General Studies Area B—Man’s
Social Inheritance and Social
Responsibilities (GSB)

103		GEOG OF MANS ENVIR				03.0 Cr	
6804	201	09.50-10.50	MTWThF	Lawson	101	Lieber & Horsley	
104		MAN & HIS WRLD-ANTH				03.0 Cr	
6116	201	08.40-09.40	MTWThF	Faner	1326	Bender	
105		CONTEMPORARY WORLD				03.0 Cr ¹	
6947	201	09.50-10.50	MTWThF	Lawson	201	Dotson	
109		INTRO-BLACK AMERICA				03.0 Cr	
6180	201	09.50-10.50	MTWThF	Wham	201	Cox	
160		MASS COMM IN SOC				02.0 Cr	
6997	201	02.30-03.30	M W F	Lawson	221		
202		INTRO TO PSYCHOLOGY				03.0 Cr	
7475	201	11.00-12.00	MTW	Lawson	141	Carrier N	
		07.30-10.50	Th	Pull	118		
7476	202	11.00-12.00	MTW	Lawson	141	Carrier N	
		11.00-02.20	Th	Pull	118		
7477	203	11.00-12.00	MTW	Lawson	141	Carrier N	
		07.30-10.50	Th	Pull	119		
7478	204	11.00-12.00	MTW	Lawson	141	Carrier N	
		11.00-02.20	Th	Pull	119		
7479	205	11.00-12.00	MTW	Lawson	141	Carrier N	
		07.30-10.50	F	Pull	118		
7480	206	11.00-12.00	MTW	Lawson	141	Carrier N	
		07.30-10.50	F	Pull	119		
203		THE SOC PERSPECTIVE				04.0 Cr ¹	
7669	201	07.30-08.30	M W F	Faner	1230		
		07.30-09.40	T Th	Faner	1230		
7670	202	09.50-10.50	M W F	Pull	39	Mcglynn	
		09.50-12.00	T Th	Faner	2463		
206		APPLIED CHILD DEVEL				03.0 Cr	
6269	201	08.40-09.40	MTWThF	H Ec	140B	Gulley	
6270	202	09.50-10.50	MTWThF	H Ec	208	Gulley	
211		CONTEMPORARY ECON				03.0 Cr ¹	
6531	201	01.20-02.20	MTWThF	Faner	1004	Fryman R	
212		AMER GOVT & POLITIC				04.0 Cr ¹	
7440	201	09.50-10.50	M W F	Wham	308	Mason	
		09.50-10.50	T Th	Faner	1326		
7441	202	09.50-10.50	M W F	Wham	308	Mason	
		09.50-10.50	T Th	Faner	1326		
		01.20-02.20	T Th	Pull	37		
7442	203	01.20-02.20	MTWThF	Faner	1136	Jacobini	
		09.50-10.50	T Th	Pull	37		
7443	204	01.20-02.20	MTWThF	Faner	1136	Jacobini	
		02.30-03.30	T Th	Faner	2463		
221		SURVIVAL OF MAN				03.0 Cr	
6009	201	08.40-09.40	MTWTh	Lawson	141		
		08.40-09.40	F	Ag	224		
6010	202	08.40-09.40	MTWTh	Lawson	141		
		09.50-10.50	T	Pull	39		
6011	203	08.40-09.40	MTWTh	Lawson	141		
		11.00-12.00	Th	Wham	328		

6012	204	08.40-09.40	MTWTh	Lawson	141	
		08.40-09.40	F	Faner	1224	
6013	205	08.40-09.40	MTWTh	Lawson	141	
		09.50-10.50	Th	Ag	154	
6014	206	08.40-09.40	MTWTh	Lawson	141	
		08.40-09.40	F	Nkrs A	278	
6015	207	08.40-09.40	MTWTh	Lawson	141	
		08.40-09.40	F	Pull	39	
231 AMERICAN ED SYSTEMS						02.0 Cr
6599	201	09.50-11.20	T Th	Faner	2010	
255 REG GEOG OF U S						02.0 Cr
6805	201	11.00-12.00	M W F	Faner	2533	Christensen
270 INTRO-INTERNATL REL						03.0 Cr ¹
7444	201	03.40-04.40	MTWThF	Tech A	310	Stauber & Landecker
300 ORGIN-AM 1492-1877						03.0 Cr ¹
6948	201	08.40-09.40	MTWThF	Lawson	201	Murphy
301 MOD AM 1877-PRESENT						03.0 Cr ¹
6949	201	12.10-01.10	MTWThF	Lawson	201	Werlich
305 PERSONAL FINANCE						03.0 Cr ¹
6751	201	01.20-02.20	MTWThF	Wham	201	
310 CURRENT EVENTS						01.0 Cr
6998	201	09.50-10.40	T Th	Wham	308	
321 SOC OF INDIVIDUAL						03.0 Cr ¹
7671	201	08.40-09.40	MTWThF	Faner	1228	Patterson
325 RACE & MINORITY REL						03.0 Cr ¹
7672	201	08.40-09.40	MTWThF	Faner	2463	Brooks
330 LANGUAGE & BEHAVIOR						03.0 Cr ¹
7030	201	09.50-10.50	MTWThF	Faner	2365	Gilbert
341 MARRIAGE-SOC INSTI						03.0 Cr ¹
7673	201	01.20-02.20	MTWThF	Faner	1224	
378 AM FOREIGN POLICY						03.0 Cr ¹
7445	201	11.00	MTWThF	Tech A	310	Stauber

General Studies Area C—Man’s
Insight and Appreciations (GSC)

100 MUSIC UNDERSTANDING						02.0 Cr ¹
7156	201	08.40-09.40	M W F	Altg	106	Bateman
7157	202	11.00-12.00	M W F	Lawson	131	Bliven
7158	840	To be arranged		London		Barwick & Mueller
Above section meets from July 6 - August 3						
101 INTRODUCTION TO ART						03.0 Cr
6125	201	09.50-10.50	MTWThF	Lawson	141	
102 PROB IN PHILOSOPHY						03.0 Cr ¹
7254	201	09.50-10.50	M W F	Faner	1005	Kelly
		09.50-10.50	T Th	Tech A	422	
7255	202	09.50-10.50	M W F	Faner	1005	Kelly
		11.00-12.00	T Th	Faner	1004	
104 MORAL DECISION						03.0 Cr ¹
7256	201	08.40-09.40	MTWThF	H Ec	208	Schedler
107 MAN,LEISURE & REC						02.0 Cr
7538	201	09.50-10.50	M W F	Lawson	171	Meewen
7539	202	01.20-02.20	M W F	Lawson	171	Meewen
109 INTRO-BLACK AMERICA						03.0 Cr
6181	201	09.50-10.50	MTWThF	Wham	201	Cox
200 ORAL INTERP OF LIT						03.0 Cr ¹
7724	201	09.50-10.50	MTWThF	Comm	1020	
7725	202	11.00-12.00	MTWThF	Comm	1020	
201 INTRO TO DRAMA						03.0 Cr ¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent						
6692	201	12.10-01.10	MTWThF	Faner	2008	
203 INTRO TO THEATRE						03.0 Cr
7800	201	09.50-10.50	MTWThF	Wham	328	
205 INNOV-CONTEMP ENVIR						03.0 Cr ¹
6515	201	11.00-12.00	MTWThF	Lawson	151	Growsowsky H
206 MUS-CREAT EXPER						03.0 Cr ¹
7159	840	To be arranged		London		Barwick & Mueller

Above section meets from July 6 - August 3

¹Elective Pass/Fail ²Mandatory Pass/Fail

208 ELEMENTARY LOGIC						03.0 Cr ¹
7257	201	11.00-12.00	M W F	Faner	1005	Audi
		08.40-09.40	T Th	H Ec	203	
7258	202	11.00-12.00	M W F	Faner	1005	Audi
		11.00-12.00	T Th	Faner	1228	
210 INTRO TO FICTION						03.0 Cr ¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent						
6693	201	09.50-10.50	MTWThF	Tech A	322	Partlow
6694	202	02.30-03.30	MTWThF	Tech A	322	
214 ORIENTAL PHIL						03.0 Cr ¹
7259	201	01.20-02.20	MTWThF	H Ec	106	Liu
221 SURVIVAL OF MAN						03.0 Cr
6016	201	08.40-09.40	MTWTh	Lawson	141	
		08.40-09.40	F	Ag	224	
6017	202	08.40-09.40	MTWTh	Lawson	141	
		09.50-10.50	T	Pull	39	
6018	203	08.40-09.40	MTWTh	Lawson	141	
		11.00-12.00	Th	Wham	328	
6019	204	08.40-09.40	MTWTh	Lawson	141	
		08.40-09.40	F	Faner	1224	
6020	205	08.40-09.40	MTWTh	Lawson	141	
		09.50-10.50	Th	Ag	154	
6021	206	08.40-09.40	MTWTh	Lawson	141	
		08.40-09.40	F	Nkrs A	278	
6022	207	08.40-09.40	MTWTh	Lawson	141	
		08.40-09.40	F	Pull	39	
232 ROMAN CIVILIZATION						03.0 Cr ¹
6774	201	09.50-10.50	MTWThF	Pull	211	Speck
317 RECENT AMERICAN LIT						03.0 Cr ¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent						
6695	201	11.00-12.00	MTWThF	Faner	1028	Cassidy
6696	202	01.20-02.20	MTWThF	Faner	1026	Cassidy T
335 THE SHORT STORY						03.0 Cr ¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent						
6697	201	07.30-08.30	MTWThF	Faner	1026	Hilliard
6698	202	08.40-09.40	MTWThF	Faner	1026	Menichols
349 THE CINEMA						03.0 Cr ¹
6287	201	02.30-04.40	MTWTh	Lawson	131	Mercer J
Note:\$10 screening fee. Not open to C&P majors.						
365 SHAKESPEARE						03.0 Cr ¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent						
6699	201	09.50-10.50	M W F	Faner	2205	Boyle
		09.50-10.50	T Th	Faner	2205	
371 EVOLUTION OF JAZZ						02.0 Cr ¹
7160	201	12.10-01.10	M W F	Lawson	131	Lemasters

General Studies Area D—Organization
and Communication of Ideas (GSD)

101 ENGLISH COMPOSITION						03.0 Cr
6700	201	07.30-08.30	MTWThF	Faner	1226	
6701	202	08.40-09.40	MTWThF	Faner	1226	
6702	203	09.50-10.50	MTWThF	Faner	1226	
6703	204	09.50-10.50	MTWThF	Pull	35	
6704	205	11.00-12.00	MTWThF	Faner	1226	
6705	206	11.00-12.00	MTWThF	Wham	317	
6706	207	12.10-01.10	MTWThF	Faner	1226	
6707	208	01.20-02.20	MTWThF	Faner	1226	
6708	209	02.30-03.30	MTWThF	Faner	1226	
6709	210	03.40-04.40	MTWThF	Faner	1226	
106 ELEMENTARY ALGEBRA						00.0 Cr
7046	201	12.10-01.10	MTWThF	Tech A	310	
7047	202	12.10-01.10	MTWThF	Tech A	322	
107 INTERMED ALGEBRA						04.0 Cr
Prereq: One yr of high school algebra or GSD 106						
7048	201	07.30-08.30	MTWThF	Tech A	408	
		08.40-09.40	T Th	Tech A	408	
7049	202	07.30-08.30	T Th	Tech A	410	
		08.40-09.40	MTWThF	Tech A	410	
7050	203	11.00-12.00	MTWThF	Tech A	408	
		12.10-01.10	T Th	Tech A	408	
7051	204	11.00-12.00	MTWThF	Tech A	410	
		12.10-01.10	T Th	Tech A	410	
7052	205	01.20-02.20	MTWThF	Tech A	408	
		02.30-03.30	T Th	Tech A	408	

110 ECON-BUS STATISTICS					02.0 Cr ¹
6532	201	11.00-12.00	M W F	Faner 1004	
112 BASIC CONCEPTS-STAT					02.0 Cr
Prereq: One yr of high school algebra or GSD 106					
7053	201	09.50-10.50	M W F	Faner 1326	
113 INTRO TO MATH					02.0 Cr
Prereq: One yr of high school algebra or GSD 106					
7054	201	08.40-09.40	M W F	Tech A 408	
7055	202	12.10-01.10	M W F	Tech A 408	
7056	203	12.10-01.10	M W F	Nkrs C 116	
117 EXPOSITORY WRITING					02.0 Cr
Prereq: GSD 101 or equivalent					
6710	201	07.30-08.30	M W F	Faner 1032	
6711	202	11.00-12.00	M W F	Faner 1228	
6712	203	01.20-02.20	M W F	Faner 2073	
118 TECH REPORT WRITING					02.0 Cr
Prereq: GSD 101 or equivalent					
6713	201	08.40-09.40	M W F	Faner 1230	
6714	202	09.50-10.50	M W F	Faner 2463	
6715	203	12.10-01.10	M W F	Faner 1230	
119 CREATIVE WRITING					02.0 Cr
Prereq: GSD 101 or equivalent					
6716	201	09.50-10.50	M W F	H Ec 306	
6717	202	11.00-12.00	M W F	H Ec 122	
6718	203	02.30-03.30	M W F	Faner 1030	
152 INTERPERSONAL COMM					02.0 Cr
7726	201	07.30-09.00	T Th	Comm 1018	
7727	202	08.40-09.40	M W F	Comm 1018	
7728	203	09.50-11.20	T Th	Ag 224	
7729	204	11.00-12.00	M W F	Wham 112	
7730	205	11.00-12.30	T Th	H Ec 202	
7731	206	12.10-01.10	M W F	Comm 2012	
7732	207	01.20-02.50	T Th	H Ec 201	
7733	208	02.30-04.00	T Th	Tech D 131	
153 PUBLIC COMMUNICAT					03.0 Cr
7734	201	09.50-10.50	MTWThF	Lingle 123	
7735	202	09.50-10.50	MTWThF	H Ec 120	
7736	203	11.00-12.00	MTWThF	H Ec 201	
7737	204	11.00-12.00	MTWThF	Comm 1022	
7738	205	12.10-01.10	MTWThF	Comm 1022	
7739	206	01.20-02.20	MTWThF	H Ec 122	
7740	207	02.30-03.30	MTWThF	Wham 303	

General Studies Area E—Human Health and Well Being (GSE)

All GSE open to men and women, except GSE 112 which is for women.					
101A SWIMMING-BEGINNING					02.0 Cr ¹
7271	201	11.00-12.00	MTWTh	Pull P 61 Knowlton R	
7272	202	12.10-01.10	MTWTh	Pull P 61 Carroll P	
101B SWIMMING-INTERMED					02.0 Cr ¹
7273	201	01.20-02.20	MTWTh	Pull P 61 Good L	
101D SWIMMING-SKIN DIV					02.0 Cr ¹
Prereq: Consent of instr					
7274	301	02.30-04.40	T Th	Pull P 61 Carroll P	
		02.30-04.40	M W	Tech A 405	
To be arranged					
Above section meets 6/13-7/8					
101E SWIMMING-SCUBA DIV					00.2 Cr ¹
Prereq: GSE 101d					
7275	301	02.30-04.40	T Th	Pull P 61 Carroll P	
		02.30-04.40	M W	Tech A 405A	
To be arranged					
Above section meets 7/11-8/3					
102A WEIGHT TRAINING					02.0 Cr ¹
7276	201	09.50-10.50	M W F	Pull 11 Ellis W	
To be arranged					
One additional hour					
7277	202	11.00-12.00	M W F	Pull 11 Ellis W	
To be arranged					
One additional hour					

104A ARCHERY					02.0 Cr ¹
7278	201	11.00-01.10	T Th	Arena 555	
104B BADMINTON					02.0 Cr ¹
7279	201	11.00-01.10	T Th	Arena 555 Stotlar J	
104D BOWLING					02.0 Cr ¹
7280	201	08.40-10.50	T Th	Center 103 Franklin C	
7281	202	11.00-01.10	T Th	Center 103 Franklin C	
7282	203	02.30-04.40	T Th	Center 103 Ackerman K	
104E GOLF					02.0 Cr ¹
7283	201	07.30-09.40	M W	Arena 555 Okita T	
104H TENNIS					02.0 Cr ¹
7284	201	08.40-10.50	T Th	Arena 555 Good L	
7285	202	08.40-10.50	M W	Arena 555 Good L	
7286	203	11.00-01.10	T Th	Arena 555	
7287	204	12.10-02.20	M W	Arena 555 Stotlar	
7288	205	05.00-06.00	MTWTh	Arena 555	
GSE 104h students must furnish 1 tennis ball					
104I VOLLEYBALL					02.0 Cr ¹
7289	201	06.00-08.30pm	M W	Arena 555 Wilkinson J	
7290	202	06.00-08.30pm	T Th	Arena 555 Ackerman K	
104J SOFTBALL					02.0 Cr ¹
7291	201	01.20-03.40	T Th	Arena 555 Surrette R	
104Q FLY & BAIT CASTING					02.0 Cr ¹
7292	201	07.30-09.40	M W	Arena 555 Franklin	
GSE 104q students must furnish rod and reel					
104Y RACQUETBALL					02.0 Cr ¹
7293	201	07.30-09.40	T Th	Arena 555 Ellis W	
7294	202	08.40-10.50	M W	Arena 555 Wilkinson	
GSE 104y students must furnish 1 ball					
111A SWIM-BEGINNING					02.0 Cr ¹
7322	201	08.40-09.40	MTWThF	Pull P 61	
7323	202	09.50-10.50	MTWThF	Pull P 61	
111B SWIM-INTERMEDIATE					02.0 Cr ¹
Prereq: GSE 111a or equivalent					
7324	201	08.40-09.40	MTWThF	Pull P 61	
7325	202	09.50-10.50	MTWThF	Pull P 61	
111F SWIM-LIFESAVING					02.0 Cr ¹
Prereq: Pass special swim test					
7326	201	07.30-08.30	MTWThF	Pull P 61	
111G SWIM-CANOEING					01.0 Cr ¹
Prereq: Pass special swim test					
7327	201	09.50-10.50	M W F	Gym 203	
7328	202	09.50-11.30	T Th	Gym 203	
112 EXERCISE FOR FITNES					01.0 Cr ¹
7329	201	08.40-09.40	T Th	Gym 207	
7330	202	09.50-10.50	T Th	Gym 207	
113D DANCE-BEG CONTEMP					02.0 Cr ¹
7331	201	08.40-09.40	MTWThF	Gym 208	
114A ARCHERY					01.0 Cr ¹
7332	201	09.50-11.30	T Th	Gym 208	
114D BOWLING					02.0 Cr ¹
7333	201	11.00-12.00	MTWThF	Center 103	
7334	202	12.10-01.10	MTWThF	Center 103	
7335	203	01.20-02.20	MTWThF	Center 103	
114H TENNIS					02.0 Cr ¹
7336	201	07.30-08.30	MTWThF	Gym 208	
7337	202	08.40-09.40	MTWThF	Gym 114	
7338	203	09.50-10.50	MTWThF	Gym 114	
7339	204	11.00-12.00	MTWThF	Gym 208	
7340	205	12.10-01.10	MTWThF	Gym 208	
7341	206	01.20-02.20	MTWThF	Gym 208	
114T INTERMEDIATE TENNIS					02.0 Cr ¹
7342	201	02.30-03.30	MTWThF	Gym 114	
201 HEALTHFUL LIVING					02.0 Cr ¹
6869	201	07.30-08.30	M W F	Nkrs A 278	
6870	202	07.30-08.30	M W F	Tech D 131	
6871	203	08.40-09.40	M W F	Ag 144	
6872	204	08.40-09.40	M W F	Nkrs C 410	
6873	205	09.50-11.20	T Th	Tech D 131	
6874	206	09.50-10.50	M W F	Tech D 131	
6875	207	11.00-12.00	M W F	Tech D 131	
6876	208	12.10-01.40	T Th	Tech D 131	
6877	209	12.10-01.10	M W F	Tech D 131	
236 NUTRITIONAL ECOLOGY					02.0 Cr ¹
6765	201	09.50-10.50	M W F	H Ec 140B Konishi F	

6878	201	08.40-09.40	M	W	F	Ag	150
6879	202	09.50-10.50	M	W	F	Tech A	122
6880	203	09.50-11.20	T	Th		Ag	116
6881	204	12.10-01.40	T	Th		Tech A	420

SCHEDULE OF DEPARTMENTAL COURSES

¹Elective Pass/Fail ²Mandatory Pass/Fail

Course No.		Course Title		Semester Hours of Credit		
Call	Sect.					
No.	No.	Time	Days	Building	Room	Instructor's Name
	210	ACCT PRINC & CONTRL				03.0 Cr ¹
6023	201	11.00-12.00	MTWThF	Cl	18	
6024	202	02.30-03.30	MTWThF	Cl	18	
	221	ACCOUNTING I				03.0 Cr
	Prereq: Sophomore standing					
6025	201	08.40-09.40	MTWThF	Cl	18	
6026	301	08.40-10.50	MTWThF	Cl	12	
	Above section meets 6/13-7/8					
	222	ACCOUNTING II				03.0 Cr
	Prereq: 221-3					
6027	201	08.40-09.40	MTWThF	Cl	24	
6028	301	08.40-10.50	MTWThF	Cl	12	
	Above section meets 7/11-8/3					
	321	INTERMED ACCT I				03.0 Cr
	Prereq: 222-3					
6029	201	12.10-01.10	MTWThF	Cl	12	
	322	INTERMED ACCT II				03.0 Cr
	Prereq: 321-3					
6030	201	01.20-02.20	MTWThF	Cl	12	
	341	COST ACCOUNTING				03.0 Cr
	Prereq: 222-3					
6031	201	02.30-03.30	MTWThF	Cl	12	
	365	INTRO TO TAXATION				03.0 Cr
	Prereq: 222					
6032	201	11.00-12.00	MTWThF	Cl	12	
	390	INDEP STUDY IN ACCT				01.0 to 04.0 Cr
	Prereq: 322,341,365 and consent of department					
6033	201	To be arranged				
	405	ACCT-PUBLIC ORGANIZ				03.0 Cr
	Prereq: 222					
6034	201	09.50-10.50	MTWThF	Cl	24	
	442	ADVANCED COST ACCT				03.0 Cr
	Prereq: 341					
6035	201	01.20-02.20	MTWThF	Cl	18	
	453	ADVANCED ACCOUNTING				03.0 Cr
	Prereq: 322					
6036	201	12.10-01.10	MTWThF	Cl	18	
	486	AUDITING				03.0 Cr
	Prereq: 341,322 and 365					
6037	201	02.30-03.30	MTWThF	Cl	24	
Administration of Justice (AJ)						
	200	INTRO-CRIMINAL BEH				03.0 Cr
6038	201	11.00-12.00	MTWThF	Faner	1136	Johnson
	201	INTRO-CRIM JUST SYS				03.0 Cr
6039	201	08.40-09.40	MTWThF	Faner	1004	Kiefer
	301	HUMAN REL-CRIM JUST				03.0 Cr
	Prereq: 200 and 201 or cons of instr					
6040	201	09.50-10.50	MTWThF	Faner	2073	
	316	INTRO-CRIM JUST RES				03.0 Cr
	Prereq: 200 and 201 or cons of instr					
6041	201	08.40-09.40	MTWThF	H Ec	104	Barry

04.0 Cr¹03.0 Cr¹

03.0 Cr¹

03.0 Cr

03.0 Cr

6089	201	07.30-12.00	M	0832	101	Yambert P
		07.30-08.30	W	0832	101	
		To be arranged				
		Field trips tha				

101	INTRO CLIN LAB TECH	01.0 to 04.0 Cr
Prereq: Consent of program advisor		
6090	850 To be arranged Rahmp	Smith D
102	INTRO CLIN RAD TECH	01.0 to 04.0 Cr
Prereq: Consent of program advisor		
6091	850 To be arranged Rahmp	Smith D
103	CLIN RESPIR THERAPY	01.0 to 12.0 Cr
Prereq: Consent of program advisor		
6092	850 To be arranged Rahmp	Smith D
125	SURVEY-AL HLTH SCI	01.0 to 04.0 Cr
Prereq: Consent of program advisor		
6093	850 To be arranged Rahmp	Smith D
151	CLIN LAB TECHNIQUES	01.0 to 10.0 Cr
Prereq: Consent of program advisor		
6094	850 To be arranged Rahmp	Smith D
152	CLIN RADIOLOGIC TEC	01.0 to 10.0 Cr
Prereq: Consent of program advisor		
6095	850 To be arranged	Smith D
201	CLIN LAB TECHNIQUES	01.0 to 10.0 Cr
Prereq: Consent of program advisor		
6096	850 To be arranged Rahmp	Smith D
202	CLIN RADIOLOGIC TEC	01.0 to 10.0 Cr
Prereq: Consent of program advisor		
6097	850 To be arranged Rahmp	Smith D
203	CLIN RESPIR THERAPY	01.0 to 12.0 Cr
Prereq: Consent of program advisor		
6098	850 To be arranged Rahmp	Smith D

Animal Industries (ANI)

121	SCIENCE OF ANIMALS	03.0 Cr ¹
Prereq: Concurrent enrollment in 122		
6099	201 11.00-12.00 MTWThF Ag	102 Olson & Goodman
122	PROD-PROCESS PRACT	01.0 Cr ¹
Prereq: Concurrent enrollment in 122		
6100	201 07.30-09.40 T Th Ag	116
Instructors- Olson, Hodson, Goodman		
201	CARE & MGT OF PETS	03.0 Cr ¹
6101	201 12.10-01.10 MTWThF Ag	102 Hausler C
220	EQUITATION	02.0 Cr ²
Prereq: Consent of instructor		
6102	201 07.30-09.40 M W F Ag	114 Kammlade W
6103	202 09.50-12.00 M Ag	114 Kammlade W
	07.30-09.40 T Th Ag	114
258	WORK EXPERIENCE	01.0 to 10.0 Cr ²
Prereq: Consent of chairman		
6104	700 To be arranged	
310	MEAT,POUL,MILK PROD	03.0 Cr ¹
6105	201 01.20-02.20 MTWThF Ag	102
Instructors- Males, Goodman, Olson		
315	FEEDS AND FEEDING	03.0 Cr
6106	201 02.30-03.30 M W F Ag	116
	02.30-04.40 T Th Ag	132
359	INTERN PROGRAM	02.0 to 03.0 Cr ²
Prereq: Junior standing and consent of chairman		
6107	700 To be arranged	
390	SPECIAL STUDIES ANI	01.0 to 04.0 Cr ²
Prereq: Juniors and seniors only and consent of chairman		
6108	700 To be arranged	
502	SUR RES TEC-FARM AN	02.0 Cr
Prereq: Consent of instructor		
6109	201 07.30-10.50 T Th Ag	132 Koehn
531	STOCK MGT-REPRO EFF	02.0 Cr
Prereq: 431		
6110	201 08.40-10.50 M W F Ag	116 Hausler
581	SEMINAR	01.0 Cr
6111	201 03.40-04.40 M W Ag	132 Lee
588	INTERNATL GRAD STU	01.0 to 08.0 Cr
6112	700 To be arranged	

590	READINGS IN AN IND	01.0 to 03.0 Cr
6113	700 To be arranged	
593	INDIVIDUAL RESEARCH	01.0 to 03.0 Cr
6114	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
6115	700 To be arranged	
Anthropology (ANTH)		
231	FOLKLORE & MOD LIFE	03.0 Cr
6117	201 09.50-10.50 MTWThF Faner	1026 Maring
460	INDIV STUDY IN ANTH	01.0 to 12.0 Cr
6118	700 To be arranged	
585	READINGS IN ANTH	01.0 to 03.0 Cr
6119	700 To be arranged	
597	FIELDWORK IN ANTH	01.0 to 12.0 Cr
6120	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
6121	700 To be arranged	
600	DISSERTATION	01.0 to 12.0 Cr
6122	700 To be arranged	

Architectural Technology (ARCH)

111	ARCHITECT DRAFTING	07.5 Cr
6123	201 07.30-12.20 MTWThF Tech A	221
214	ARCH DRAWINGS II	06.0 Cr
Prereq: 124		
6124	201 07.30-11.10 MTWThF Tech A	209

Art (ART)

100A	BASIC STUDIO	04.0 Cr
6126	201 08.00-12.00 M W F Allyn	102
100B	BASIC STUDIO	04.0 Cr
6127	201 08.00-12.00 M W F 0549	101
200	BEGINNING DRAWING	02.0 Cr
Prereq: 100a, 107		
6128	201 09.00-12.00 T Th Allyn	210
201	BEGINNING PAINTING	02.0 Cr
Prereq: 100a, 107		
6129	201 02.30-04.20 M W F Allyn	106
203	BEGINNING SCULPTURE	02.0 Cr
Prereq: 100b, 107		
6130	201 09.00-12.00 T Th 0549	101
204	BEGINNING CERAMICS	02.0 Cr
Prereq: 100b, 107		
6131	201 09.00-12.00 T Th Pull I	105
205	BEG JEWELRY & METAL	02.0 Cr
Prereq: 100b, 107		
6132	201 02.30-05.20 T Th Pull I	105
206	BEGINNING FIBERS	02.0 Cr
Prereq: 100b, 107		
6133	201 09.00-12.00 T Th Pull I	105
258	WORK EXPERIENCE	01.0 to 30.0 Cr ²
6134	700 To be arranged	
300	INTERMED DRAWING	04.0 Cr
Prereq: 200		
6135	201 01.20-05.10 M W F Allyn	210
301	INTERMED PAINTING	04.0 Cr
Prereq: 201		
6136	201 08.00-12.00 M W F Allyn	210
302C	BEG PRINT-SILKSCR	04.0 Cr
Prereq: 100a&b, 107		
6137	201 01.20-05.10 M W F Allyn	206
303A	INTERMED SCULPTURE	04.0 Cr
Prereq: 203		
6138	201 01.20-05.10 M W F 0549	101
304A	CERAMICS-INTERMED	04.0 Cr
Prereq: 204		
6139	201 08.00-12.00 M W F Pull I	105

305A JEWELRY-INTERMED						04.0 Cr	
Prereq: 205							
6140	201	08.00-12.00	M W F	Pull I	105		
306A WEAIVING-INTERMED						04.0 Cr	
Prereq: 206							
6141	201	01.20-05.10	M W F	Pull I	105		
307 ANCIENT ART						03.0 Cr	
6142	201	11.00	MTWThF	Lawson	231		
308 THEO & PHIL-ART ED						03.0 Cr	
6143	201	12.10-01.20	MTWThF	Allyn	112		
309 INDEPENDENT STUDY						02.0 to 12.0 Cr	
Prereq: Complete all 100&200 level req in maj & consent inst							
6144	700	To be arranged					
327 RENAISSANCE ART						03.0 Cr	
6145	840	To be arranged			Italy	Mavigliano	
Above section meets May 9 - June 10							
348 STU-MEDIA,CURR,PHIL						03.0 Cr	
6146	201	08.40-12.00	T Th	Allyn	112		
400 DRAWING I						02.0 to 16.0 Cr	
Prereq: Ugrad- 300-8. Grad- cons maj adv in approp art disci							
6147	201	To be arranged					
401 PAINTING I						02.0 to 16.0 Cr	
Prereq: Ugrad- 301-8. Grad- cons maj adv in approp art disci							
6148	201	To be arranged					
403 SCULPTURE I						02.0 to 16.0 Cr	
Prereq: Ugrad- 303-8. Grad- cons maj adv in approp art disci							
6149	201	To be arranged					
404 CERAMICS I						02.0 to 16.0 Cr	
Prereq: Ugrad- 304-8. Grad- cons maj adv in approp art disci							
6150	201	To be arranged					
405 METALSMITHING I						02.0 to 16.0 Cr	
Prereq: Ugrad- 305-8. Grad- cons maj adv in approp art disci							
6151	201	To be arranged					
406 FIBERS/WEAVING I						02.0 to 16.0 Cr	
Prereq: Ugrad- 306-8. Grad- cons maj adv in approp art disci							
6152	201	To be arranged					
417 20TH C ART TO WW II						03.0 Cr	
6153	201	09.50-10.50	MTWThF	Lawson	161		
499 INDIVIDUAL PROBLEMS						02.0 to 16.0 Cr	
Prereq: Consent of instructor							
6154	700	To be arranged					
6155	840	To be arranged			Italy		
Above section meets May 9 - June 10 - 3 Cr							
517 CONCEPTS IN ART HIS						03.0 Cr	
6156	201	To be arranged					
599 THESIS						02.0 to 06.0 Cr	
6157	700	To be arranged					

Automotive Technology (AUT)

101 BASIC AUTO ENG LAB					03.0 Cr
Prereq: Concurrent enrollment in 121					
6158	301	07.30-10.45	MTWThF	L2	108 White & Romack
Above section meets June 13 - July 8					
102 ADV AUTO ENGINE LAB					03.0 Cr
Prereq: 101, 121 and concurrent enrollment in 122					
6159	301	07.30-10.45	MTWThF	L2	108 White & Romack
Above section meets July 11 - Aug 3					
121 BASIC AUTO ENG THEO					02.0 Cr
Prereq: Concurrent enrollment in 101					
6160	301	10.55-12.15	MTWThF	L2	105 White & Romack
Above section meets June 13 - July 8					
122 ADV AUTO ENGINE THE					02.0 Cr
Prereq: 101, 121 and concurrent enrollment in 102					
6161	301	10.55-12.15	MTWThF	L2	105 White & Romack
Above section meets July 11 - Aug 3					

Aviation Technology (AT)

111 MATER & METAL PROC					05.0 Cr
6162	201	07.30-11.20	F	Avtech	135 Rich D
		07.30-09.20	MTWTh	Avtech	118
		01.30-03.20	T Th	Avtech	118
113 AIRCRFT INSTR & FAR					05.0 Cr
6163	201	09.30-11.20	MTWThF	Avtech	135 Schafer J
		12.30-01.20	MTWThF	Avtech	116
201 APPLIED SCIENCE					02.0 Cr
6164	201	01.20-02.50	M W	Avtech	118
225 AIRCRAFT INSPECTION					06.0 Cr
6165	201	07.30-08.20	MTWThF	Avtech	116 Kolkmeier D
		08.30-10.20	MTWThF	Avtech	132
6166	202	07.30-08.20	MTWThF	Avtech	118 Burkey P
		08.30-10.20	MTWThF	Avtech	132
6167	203	12.30-03.20	MTWTh	Avtech	135 Cannon R
		12.30-02.20	F	Avtech	135
		02.30-03.20	F	Avtech	116
		03.30-04.20	MTWTh	Avtech	116
230 POWERPLANT INSPECT					06.0 Cr
6168	201	07.30-08.20	MTWThF	Avtech	116 Staples L
		08.30-11.20	MTWTh	Avtech	135
		08.30-10.20	F	Avtech	135
6169	202	12.30-01.20	MTWThF	Avtech	116
		01.30-04.20	MTWThF	Avtech	132

Avionics Technology (ATA)

302 AVIONICS LAB V					03.0 Cr
6170	201	07.30-10.20	MTWTh	Avtech	106 Birkhead L
6171	202	01.30-04.20	MTWTh	Avtech	106
303 FCC REGULATIONS					02.0 Cr
6172	201	07.30-11.20	F	Avtech	106
304 AVI RADAR SYST THEO					04.0 Cr
6173	201	10.30-12.20	MTWTh	Avtech	106 Birkhead

Biology (BIOL)

305 GENET-CLASS & MOLEC					03.0 Cr
6177	201	09.50-10.50	MTWThF	Wham	302
307 ENVIRONMENTAL BIOL					03.0 Cr
Prereq: Advanced standing in biology					
6178	201	08.40-09.40	MTWThF	Wham	308 Voigt
308 ORGAN-FUNCTION BIOL					03.0 Cr
6179	201	11.00-12.00	MTWThF	Wham	308 Mickus J

Black American Studies (BAS)

230 INTRO-BLACK SOCIOL					03.0 Cr
Prereq: GSB 109					
6182	201	11.00-12.00	MTWThF	H Ec	106 Jones M
333 THE BLACK FAMILY					04.0 Cr
Prereq: 230 or junior standing					
6183	201	08.40-09.40	MTWThF	H Ec	202 Jones
		07.30-08.30	T Th	H Ec	202 Jones

Botany (BOT)

160 INTEGRATED SCIENCE					03.0 Cr
6189	201	08.40-12.00	M W F	LS II	480 Pappelis
200 GENERAL BOTANY					03.0 Cr
6190	201	08.40-09.40	MTWThF	Lawson	231
201 GENERAL BOTANY-LAB					01.0 Cr
Prereq: 200 or concurrent enrollment					
6191	201	09.50-12.00	T Th	LS II	480
6192	202	12.10-02.20	T Th	LS II	480
6193	203	02.30-04.40	T Th	LS II	480
204 BOT-PLANT DIVERSITY					03.0 Cr
Prereq: 200 or consent of instr					
6194	201	01.20-02.20	MTWThF	LS I	133
205 PLANT DIVERSITY LAB					01.0 Cr
Prereq: 204 or concurrent enrollment					
6195	201	09.50-12.00	T Th	LS II	404
258 WORK EXPERIENCE					02.0 to 08.0 Cr
Prereq: Approval by dept chairman prior to enrollment					
6196	700	To be arranged			

304 PLANT CLASSIFICAT					03.0 Cr
Prereq: 200 or equiv					
6197	201	11.00-12.00	T Th	LS II	430 Ugent D
		08.40-12.00	W F	LS II	404
320 ELEMENTS-PLANT PHSL					04.0 Cr
Prereq: 200;organic chemistry or minor in chemistry					
6198	201	07.30-08.30	M W F	LS II	430 Schmid
		09.50-12.00	M W F	LS II	457
390 READING IN BOTANY					01.0 to 03.0 Cr
Prereq: Consent of departmental chmn					
6199	700	To be arranged			
391 SPEC PROBS IN BOT					01.0 to 04.0 Cr
Prereq: Consent of dept chairman					
6200	700	To be arranged			
400 PLANT ANATOMY					04.0 Cr
Prereq: 200 or consent of instructor					
6201	201	12.10-01.10	M W F	LS II	430
		01.20-04.40	T Th	LS II	404
446 TROPICAL ECOLOGY					04.0 Cr
Prereq: Adv ugrad or grad stdn-bio sci,& conc enrol ZOOL 446					
6202	201	To be arranged			
Concurrent enrollment in ZOOL 446					Ugent D
448 FLD STU IN WEST US					06.0 Cr
Prereq: 304, Biology 307 or equivalents & consent of instr					
6203	850	To be arranged			
Above section meets June 27 - Aug 4					Mont
492 HONORS IN BOTANY					02.0 to 06.0 Cr
Prereq: Cons of dept chrmn					
6204	700	To be arranged			
533 PLT GRO & MORPHOGEN					04.0 Cr
Prereq: 320 or consent of instructor					
6205	201	01.20-02.20	M W F	LS II	430 Yopp J
		09.50-01.10	T Th	LS II	453 Yopp J
552 LOWLAND FLORA					03.0 Cr
Prereq: 304 or GSA 303 or consent of instructor					
6206	201	07.30-01.10	Th	LS II	453 Tindall D
To be arranged					
Additional hours on Mondays in LS II 404.					
570 GRAD READINGS-BOT					02.0 to 03.0 Cr
Prereq: Consent of instructor					
6207	700	To be arranged			
590 INTRO TO RESEARCH					01.0 to 03.0 Cr
Prereq: Consent of instructor					
6208	700	To be arranged			
591 RESEARCH					02.0 to 09.0 Cr
Prereq: Consent of instructor					
6209	700	To be arranged			
599 THESIS					02.0 to 09.0 Cr
Prereq: Consent of instructor					
6210	700	To be arranged			
600 DISSERTATION					01.0 to 12.0 Cr
Prereq: Cons of instr					
6211	700	To be arranged			

Business Administration (BA)

410 ACCT CONCEPTS					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6212	301	08.40-12.00	MTWThF	Cl	24 Tucker
Above section meets May 16 - June 10					
430 BUSINESS FINANCE					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6213	201	To be arranged			
440 MANAGEMENT PROCESS					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6214	201	01.20-02.20	MTWThF	Wham	321 Osborn
450 INTRO-MKTG CONCEPTS					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6215	201	To be arranged			
514 CONTROLLERSHIP					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6216	201	11.00-01.10	M W F	Cl	24 Schmidlein

530 FINANCIAL MGT					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6217	201	08.40-09.40	MTWThF	Ag	152 Elsaid
532 FIN INST & MARKETS					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6218	201	09.50-10.50	MTWThF	Ag	218 Gehr A
550 MARKETING MGT					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6219	201	09.50-10.50	MTWThF	Cl	109 Eckrich
551 PRODUCT STRAT & MGT					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6220	201	01.20-04.40	T Th	Allyn	103 Moore J
591 INDEPENDENT STUDY					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6221	700	To be arranged			
598 BUSINESS POLICIES					03.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6222	201	01.20-04.40	M W	Cl	328 Wilson H
599 THESIS					03.0 to 06.0 Cr
Prereq: Enrol in MBA program or cons of instructor					
6223	700	To be arranged			

Business Education (BE)

400 PRIN & PROB-BUS ED					02.0 Cr
6224	201	09.50-10.50	M W F	Cl	18 Rahe H
405 TCH EXPERIENTIAL BE					02.0 Cr
Prereq: 290					
6225	201	08.40-09.40	M W F	Cl	21 Anderson
410 TCH BUS & CONSUMED					03.0 Cr
6226	201	11.00-12.00	MTWThF	Cl	125 Lemser T
415 SUPERVIS BUS EXPER					03.0 Cr
Prereq: Consent of instructor					
6227	201	10.00-03.00	MTWThF	Cl	21 Lemser T
Above section meets (6/13-15) on campus, followed by seven weeks (6/16-8/3) employed by a firm, followed by a return to campus (8/4-5).					
427 RECORDS ADMINISTRAT					02.0 Cr
6228	201	07.30-08.30	M W F	Cl	21 Rahe
457 TCH DISTRIB SKILLS					03.0 Cr
Prereq: Marketing 341 or 452					
6229	201	12.10-01.10	MTWThF	Cl	125 Lemser
509 IMPR INST BUS SUBJ					02.0 Cr
6230	201	08.40-10.10	T Th	Cl	125
593 INDIV RES IN BUS ED					02.0 to 04.0 Cr
Prereq: Consent of instructor					
6231	700	To be arranged			

Chemistry and Biochemistry (CHEM)

115 INTRO GENERAL CHEM					04.0 Cr
6233	201	09.50-10.50	MTWThF	Nkrs C	218
		01.20-04.40	M W	Nkrs C	102
6234	202	09.50-10.50	MTWThF	Nkrs C	218
		01.20-04.40	M W	Nkrs C	104
140B SURVEY OF CHEMISTRY					04.0 Cr
Prereq: 140a					
6235	201	07.30-08.30	MTWThF	Nkrs B	240
		08.40-12.00	T Th	Nkrs C	102
6236	202	07.30-08.30	MTWThF	Nkrs B	240
		08.40-12.00	T Th	Nkrs C	104
6237	203	07.30-08.30	MTWThF	Nkrs B	240
		01.20-04.40	T Th	Nkrs C	102
6238	204	07.30-08.30	MTWThF	Nkrs B	240
		01.20-04.40	T Th	Nkrs C	104
222A INTRO TO CHEM PRINC					04.0 Cr
Prereq: One yr H.S. chem or 115					
6239	201	08.40-09.40	MTWThF	Nkrs A	156
		09.50-01.10	T Th	Nkrs C	106
222B INTRO TO CHEM PRINC					04.0 Cr
Prereq: 222a					
6240	201	08.40-09.40	MTWThF	Tech A	210
		09.50-01.10	T Th	Nkrs C	109
6241	202	08.40-09.40	MTWThF	Tech A	210
		09.50-01.10	T Th	Nkrs C	108

226 INTR-QUAN CHEM PRIN					05.0 Cr ¹
Prereq: 222b,or 224 plus 225					
6242	201	08.40-09.40	MTWThF	Nkrs C 116	
		01.20-04.40	MTWTh	Nkrs C 408	
340 SURVEY-ORGANIC CHEM					04.0 Cr
Prereq: 222b,or 224 plus 225, and concurrent enrl in 341					
6243	201	09.50-10.50	MTWThF	Nkrs A 156	
		11.00-12.00	T Th	Nkrs A 156	
341 ORGANIC CHEM LAB					02.0 Cr
Prereq: 222b,or 224 plus 225,and concurrent enrl in 340					
6244	201	11.00-12.00	M W	Nkrs C 218	
		01.20-04.40	T Th	Nkrs C 203	
346 ORGANIC CHEMISTRY					02.0 Cr
Prereq: 344 and 345 and concurrent enrol in 347					
6245	201	08.40-09.40	M W F	Nkrs B 240	
347 LAB TECHNIQUES					03.0 Cr
Prereq: 344 and 345 and concurrent enrol in 346					
6246	201	08.40-09.40	T Th	Nkrs B 240	
		01.20-04.40	M W F	Nkrs C 203	
6247	202	08.40-09.40	T Th	Nkrs B 240	
		01.20-04.40	M W F	Nkrs C 205	
396A CHEMICAL PROBLEMS					02.0 Cr
Prereq: Consent of instr & 4 sem chem lab					
6248	700	To be arranged			
6249	840	To be arranged			Europe Wotiz J
Above section meets from June 10 - August 5					
396B CHEMICAL PROBLEMS					02.0 Cr
Prereq: Consent of instr & 4 sem chem lab					
6250	840	To be arranged			Europe Wotiz J
Above section meets from June 10 - August 5					
434 INSTRU ANALYT CHEM					04.0 Cr
Prereq: One semester of physical chemistry concurrently					
6251	201	11.00-12.00	M W F	Nkrs A 156	
		01.20-04.40	M W F	Nkrs C 409	
489 SPECIAL TOPICS-CHEM					01.0 Cr
Prereq: Consent of instructor and of chairman					
6252	840	To be arranged			Europe Wotiz J
Above section meets June 10 - August 5					
491 HISTORY OF CHEM					02.0 Cr ¹
6253	840	To be arranged			Europe Wotiz J
Above section meets June 10 - August 5					
496 UGRAD RESEARCH-HONR					01.0 to 08.0 Cr
Prereq: 3.0 GPA,5 sem chem lab,consent of instr & dep chrnn					
6254	700	To be arranged			
594A SP READ-CHEM-ANALYT					02.0 to 03.0 Cr
6255	700	To be arranged			
594B SP READING-BIOCHEM					02.0 to 03.0 Cr
6256	700	To be arranged			
594C SP READ-CHEM-INORG					02.0 to 03.0 Cr
6257	700	To be arranged			
594D SP READ-CHEM-ORG					02.0 to 03.0 Cr
6258	700	To be arranged			
594E SP READ-CHEM-PHYS					02.0 to 03.0 Cr
6259	700	To be arranged			
594F SP READ-HIST CHEM					02.0 to 03.0 Cr
6260	840	To be arranged			Europe
Above section meets June 10 - Aug 5					
595A ADV SEM-CHEM ANALYT					01.0 Cr
6261	201	03.40-04.40	M	Nkrs C 218	
595B ADV SEM-BIOCHEM					01.0 Cr
6262	201	03.40-04.40	T	Nkrs C 218	
595C ADV SEM-CHEM INORG					01.0 Cr
6263	201	03.40-04.40	W	Nkrs C 218	
595D ADV SEM-CHEM ORG					01.0 Cr
6264	201	03.40-04.40	Th	Nkrs C 218	
595E ADV SEM-CHEM PHYS					01.0 Cr
6265	201	03.40-04.40	F	Nkrs C 218	
598 RESEARCH					01.0 to 12.0 Cr
Prereq: Consent of chairman					
6266	700	To be arranged			

599 THESIS				01.0 to 06.0 Cr
Prereq: Consent of chairman				
6267	700	To be arranged		
600 DISSERTATION				02.0 to 12.0 Cr
Prereq: 598				
6268	700	To be arranged		
Child and Family (C&F)				
237 CHILD DEVELOPMENT				03.0 Cr
6271	201	08.40-09.40	MTWThF H Ec	118 Ponton M
337 ADVANCED CHILD DEV				03.0 Cr
Prereq: 237				
6272	201	09.50-10.50	MTWThF H Ec	203 Ouedraogo
345 CHILD DEVELOP PRACT				03.0 Cr
Prereq: 237				
6273	201	01.20-02.20	T H Ec	203 Jones J
		09.00-12.00	M H Ec	114C Jones J
6274	202	01.20-02.20	T H Ec	203 Jones J
		09.00-12.00	T H Ec	114C
6275	203	01.20-02.20	T H Ec	203 Jones J
		09.00-12.00	W H Ec	114C
6276	204	01.20-02.20	T H Ec	203 Jones J
		09.00-12.00	Th H Ec	114C
6277	205	01.20-02.20	T H Ec	203 Jones J
		09.00-12.00	F H Ec	114C
366 FAMILY DEVELOPMENT				03.0 Cr
Prereq: 227 or GSB 341				
6278	201	09.50-10.50	MTWThF H Ec	206
408 WORKSHOP				03.0 Cr
6279	401	11.00-01.50	MTWThF H Ec	208 Ponton M
Topic: Family Life- Then and Now. Meets 7/5-7/18				
6280	402	01.00-03.50	MTWThF H Ec	206 Jones J
Topic: Child Abuse-meets 6/20-7-1				
410 HUMAN SEXUALITY				03.0 Cr
6281	201	08.40-09.40	MTWThF H Ec	206 Ouedraogo B
456 INFANT DEVELOPMENT				03.0 Cr
Prereq: 237 or PSYC 301 or equivalent				
6282	201	11.00-12.00	MTWThF H Ec	120 Eddleman
471 FIELD EXPERIENCE				02.0 to 06.0 Cr
Prereq: Consent of instructor				
6283	700	To be arranged		
481 READINGS				01.0 to 03.0 Cr
Prereq: Cons of instr & chairman				
6284	700	To be arranged		
572 SPECIAL PROBLEMS				01.0 to 03.0 Cr
Prereq: Consent of chairman				
6285	700	To be arranged		
599 THESIS				01.0 to 04.0 Cr
6286	700	To be arranged		
Cinema and Photography (C&P)				
320 BASIC PHOTOGRAPHY				04.0 Cr
6288	201	08.40-10.50	M Comm	1135 Horrell W
		08.40-09.40	W Comm	1135
		08.40-10.50	T ThF Comm	1122
Above section Professional Emphasis. *				
6289	202	11.00-01.10	M Comm	1135 Petrillo T
		11.00-12.00	W Comm	1135
		11.00-01.10	T ThF Comm	1122
Note: Above section Fine Arts emphasis *				
407 PUBLICATIONS PHOT I				03.0 Cr
Prereq: 322 and/or consent of dept				
6290	201	01.20-02.20	MTWTh Comm	1122 Horrell
		01.20-03.30	F Comm	1135
Note: *				
425 STUDIO WORKSHOP				03.0 to 09.0 Cr
Prereq: 322 and consent of dept				
6291	201	08.40-12.00	T Th Comm	1021 Gilmore D
Topic: Environmental Portraiture. 3 cr *				
6292	202	09.50-12.00	M W Comm	1122 Gilmore D
		09.50-12.00	F Comm	1021
Topic: Personal Documentary. 3 cr *				
6293	203	01.20-04.40	M W F Comm	16 Petrillo T
Topic: Nonsilver Processes. 3 cr *				
470A ADV STUDIES-CINEMA				01.0 to 09.0 Cr
Prereq: Consent of department				
6294	201	09.50-01.10	T Th Comm	1116 Fagin S
\$10 screening fee. Topic: Narative & Film-3 cr.				

6295	202	09.50-12.10	M W	Comm	1021	
\$10 screen fee. Top: Nonthea film: Propag, Ad, Ed-2 cr						
6296	301	01.20-05.50	MTWThF	Comm	1116	Covell
Topic: Feature Film Workshop, Meets 6/13-7/8 for 3 cr.						
6297	302	01.20-04.40	MTWThF	Comm	1116	Covell & Fagin
\$10 scrn fee. Exper Wkshop: Theo & Prac. 7/11-8/3 3 Cr						
	470B	ADV STUDIES-PHOTOG			01.0 to 09.0	Cr
Prereq: Consent of department						
6298	301	To be arranged		Swedlund C		
Topic: facil Still Photog: Theory& Prac meets 6/13-7/8						
	491	INDIV STUDY-C OR P			01.0 to 09.0	Cr ¹
Prereq: Consent of dept						
6299	700	To be arranged				
	492	PRACTICUM			01.0 to 03.0	Cr
Prereq: Consent of department						
6300	700	To be arranged				
	495	INTERNSHIP-C OR P			01.0 to 12.0	Cr
Prereq: Consent of dept						
6301	700	To be arranged				
	497	PROJECTS IN C OR P			03.0	Cr ¹
Prereq: Consent of dept						
6302	700	To be arranged				
	499	SENIOR THESIS			04.0	Cr ²
Prereq: Consent of dept						
6303	700	To be arranged				

*
Note-courses designated with an asterisk have an additional charge of \$5 for materials.

Clothing and Textiles (C&T)

	127	CLOTHING CONSTRUCT			02.0 to 03.0	Cr ¹
6304	201	To be arranged		Ridley S		
6 Hrs from the following- M.9:50-12:50; T.7:30-10:30 and 12:10-3:10; TH.12:10-3:10.						
	150	CLOTHING SELECTION			02.0	Cr ¹
6305	201	08.40-09.40	M W F	H Ec	203	Ridley S
	304	TEXTILES			02.0	Cr
Prereq: GSA 106 and 107						
6306	201	11.00-12.00	MTWThF	H Ec	301	Padgett
	391	FIELD EXPERIENCE			01.0 to 06.0	Cr
Prereq: Consent of chairperson						
6307	700	To be arranged				
	392	SPECIAL PROBLEMS			01.0 to 03.0	Cr
Prereq: Consent of chairperson						
6308	700	To be arranged				
	482	WORKSHOP			03.0	Cr
Prereq: Eight hours in clothing and textiles						
6309	201	01.20-02.20	MTWThF	H Ec	303	Berry T
	484	SEMINAR			01.0 to 03.0	Cr
Prereq: Consent of chairperson						
6310	201	09.50-10.50	MTWThF	H Ec	301	Padgett R
Additional hour TBA						
	490	READINGS			01.0 to 04.0	Cr
Prereq: Senior standing or consent of chairperson						
6311	700	To be arranged				
	573	COLLEGE TCH OF C&T			02.0	Cr
6312	201	11.00-12.00	M W F	H Ec	303	Berry T
	592	SPECIAL PROBLEMS			01.0 to 06.0	Cr
Prereq: Consent of chairman						
6313	700	To be arranged				
	597	PILOT STUDIES			01.0 to 03.0	Cr
Prereq: Consent of chairman						
6314	700	To be arranged				
	599	THESIS			01.0 to 06.0	Cr
6315	700	To be arranged				

Commercial Graphics (CG)

	103	LITH & PLATEMKG LAB			02.0 to 08.0	Cr
Prereq: Concurrent enrollment in 127 or consent of instr						
6316	201	To be arranged				
	126	FUND-DRAWING & COMP			02.0	Cr ¹
6317	201	08.40-10.40	M W F	F1	121	Yack J
Above section for non-majors only						
	201	LITH PHOTO LAB			02.0 to 08.0	Cr
Prereq: Concurrent enrollment in 225 or consent of instr						
6318	201	To be arranged				
	202	OFFSET PRESS LAB			02.0 to 08.0	Cr
Prereq: Concurrent enrollment in 226 or consent of instr						
6319	201	To be arranged				
	240	SPECIAL STUDY			03.0 to 12.0	Cr
6320	201	To be arranged				Yack J

Communications and Fine Arts (CCFA)

	397A	BUSINESS OF MUSIC			03.0	Cr
6321	401	08.40-12.00	MTWThF	Altg	115	Koenigstein
Above section meets 7/11-7/22.						

Community Development (CD)

	401	INTRO-COMM DEVELOP			03.0	Cr ¹
6322	201	08.40-09.40	MTWThF	Wham	205	Alliband T
	402	COMPARATIVE COM DEV			03.0	Cr ¹
6323	201	08.40-09.40	MTWThF	Faner	2206	Bhattacharyya
	491	INDEPEND STUDY-CD			01.0 to 06.0	Cr ¹
Prereq: Cons of instr						
6324	700	To be arranged				
	497E	SEM-RES PROB IN CD			01.0 to 03.0	Cr ¹
6325	201	08.40-09.40	MTWThF	Faner	2010	Needham M
	503	PROB OF APPROACH-CD			03.0	Cr ¹
Prereq: 401						
6326	201	09.50-10.50	MTWThF	Faner	2061	Denise
	593	INDIV RESEARCH-CD			01.0 to 06.0	Cr
Prereq: 500 and consent of instructor						
6327	700	To be arranged				
	595	INTERNSHIP			01.0 to 08.0	Cr
Prereq: 589 or concurrent enrollment & cons of field advisor						
6328	700	To be arranged				
	599	THESIS RESEARCH			01.0 to 06.0	Cr
Prereq: 500 and approval of thesis committee chairman						
6329	700	To be arranged				

Computer Science (CS)

	202	INTRO-COMPUTER PROG			03.0	Cr
Prereq: Completion of G S math requirement or equivalent						
6330	201	07.30-08.30	M W F	Faner	2373	
		08.40-10.10	T Th	Faner	1005	
6331	202	08.40-09.40	M W F	Faner	2373	
		08.40-10.10	T Th	Faner	1005	
6332	203	09.50-10.50	M W F	Faner	2373	
		08.40-10.10	T Th	Faner	1005	
6333	204	12.10-01.10	M W F	Faner	2373	
		08.40-10.10	T Th	Faner	1005	
	212	INTRO BUSINESS COMP			03.0	Cr
6334	201	08.40-09.40	M W F	Faner	2205	
		10.30-12.00	T Th	Faner	1005	
6335	202	11.00-12.00	M W F	Faner	2205	
		10.30-12.00	T Th	Faner	1005	
6336	203	01.20-02.20	M W F	Faner	2205	
		10.30-12.00	T Th	Faner	1005	
	311F	PROG TEC-FORTRAN IV			01.0 to 09.0	Cr
Prereq: 202						
6337	201	08.40-09.40	M W F	Faner	1005	
	311P	PL/1 AND ALGOL			02.0	Cr
Prereq: 202						
6338	201	03.40-04.40	M W F	Faner	1030	
	401	COMPUTER ORGANIZ			03.0	Cr
Prereq: 306 and 342						
6339	201	12.10-01.10	MTWThF	Faner	1028	

¹Elective Pass/Fail ²Mandatory Pass/Fail

449 COMBIN & GRAPH THEO				03.0 Cr
Prereq: 342				
6340	201	01.20-02.20	MTWThF Faner	2061
Above sect crosslisted with MATH 449				
471 INTRO-OPTIMIZ TECH				03.0 Cr
Prereq: 202, MATH 221 & MATH 250				
6341	201	09.50-10.50	MTWThF Faner	2512
Above sect crosslisted with MATH 471				
490 READINGS				01.0 to 06.0 Cr
Prereq: Consent of instructor and dept				
6342	700	To be arranged		
491 SPECIAL TOPICS				01.0 to 04.0 Cr
Prereq: Consent of instructor				
6343	201	02.30-03.30	M W F Faner	2061
492 SPECIAL PROBLEMS				01.0 to 06.0 Cr
Prereq: Consent of department				
6344	700	To be arranged		
553 FORM LANG, AUTOMATA				03.0 Cr
Prereq: 451				
6345	201	11.00-12.00	MTWThF Tech A	322
Above sect crosslisted with MATH 528				
590 READINGS				01.0 to 09.0 Cr
Prereq: Consent of instructor & dept				
6346	700	To be arranged		
591 SPECIAL TOPICS				02.0 Cr
Prereq: Consent of instructor				
6347	201	03.40-04.40	M W F Faner	2205
592 SPECIAL PROBLEMS				01.0 to 03.0 Cr
Prereq: Consent of department				
6348	700	To be arranged		
599 THESIS				01.0 to 05.0 Cr
Prereq: Consent of department				
6349	700	To be arranged		

Corrections and Law Enforcement (CLE)

103 INTRO-CRIMINAL JUST				03.0 Cr
6350	201	03.40-06.00	MT Wham	201 Bonzelet J
105 CRIMINAL BEHAVIOR				03.0 Cr
6351	201	06.30-09.00 pm	MT Wham	201 Martin C
115 INTERPERS REL-C JUS				03.0 Cr
6352	201	03.40-06.00	WTh Wham	201 Hendricks
215 INTERNSHIP-CRIM JUS				09.0 Cr
6353	201	To be arranged		

Curriculum, Instruction, and Media (CIM)

258 WORK EXPERIENCE				01.0 to 04.0 Cr
Prereq: 12hrs B in CIM maj & cons CIM Ugrad Affairs Comm				
6354	201	To be arranged		
312 TCH READING-EL SCHL				03.0 Cr
6355	201	08.40-09.40	MTWThF Wham	208 Anderson K
6356	202	12.10-01.10	MTWThF Wham	208 Steinruck
315 TCH MATH-ELEM SCHL				03.0 Cr
6357	201	09.50-10.50	MTWThF Wham	202 Thiessen
6358	202	11.00-12.00	MTWThF Wham	202 Dixon
361 TCH READING IN H.S.				03.0 Cr
6359	201	09.50-10.50	MTWThF Wham	208 Jackson J
390A READINGS-CURRICULUM				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6360	700	To be arranged		
390B READINGS-SUPERVIS				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6361	700	To be arranged		
390C READINGS-LANG ARTS				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6362	700	To be arranged		
390D READINGS-SCIENCE				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6363	700	To be arranged		

390E READINGS-MATH				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6364	700	To be arranged		
390F READINGS-READING				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6365	700	To be arranged		
390G READINGS-SOCIAL STU				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6366	700	To be arranged		
390H READINGS-EARLY CHLD				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6367	700	To be arranged		
390I READINGS-ELEM EDUC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6368	700	To be arranged		
390J READINGS-MIDDLE SCH				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6369	700	To be arranged		
390K READINGS-SECONDARY				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6370	700	To be arranged		
390L READINGS-DISADV CHL				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6371	700	To be arranged		
390M READINGS-INSTRUCT				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6372	700	To be arranged		
390N READINGS-ED MEDIA				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6373	700	To be arranged		
393A RES-CURRICULUM				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6374	700	To be arranged		
393B IND RES-SUPERVISION				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6375	700	To be arranged		
393C INDIV RES-LANG ARTS				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6376	700	To be arranged		
393D INDIVID RES-SCIENCE				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6377	700	To be arranged		
393E INDIVIDUAL RES-MATH				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6378	700	To be arranged		
393F INDIV RES-READING				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6379	700	To be arranged		
393G IND RES-SOC STUDIES				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6380	700	To be arranged		
393H IND RES-EARLY CHILD				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6381	700	To be arranged		
393I IND RES-ELEM EDUC				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6382	700	To be arranged		
393J IND RES-MID,JR H.S.				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6383	700	To be arranged		
393K IND RES-SECOND ED				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6384	700	To be arranged		
393L IND RES-DISADV CHLD				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6385	700	To be arranged		
393M IND RES-INSTRUCTION				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6386	700	To be arranged		
393N IND RES-EDUC MEDIA				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6387	700	To be arranged		

3930 IND RES-ENVIRON ED				01.0 to 06.0 Cr
Prereq: Consent of instructor				
6388	700	To be arranged		
402 DISADV,CULT DIF STU				03.0 Cr
6389	401	12.10-04.40	MTWThF	Wham 328 Grant
Above section meets 7/25-8/3				
407C CORR TECH-LANG ARTS				03.0 Cr
Prereq: Sp meth crse in fld select by stu and/or cons instr				
6390	201	08.40-09.40	MTWThF	Wham 206 Shepherd
407E CORR TECHNIQ-MATH				03.0 Cr
Prereq: Sp meth crse in fld select by stu and/or cons instr				
6391	201	07.30-08.30	MTWThF	Wham 202 Paige
407F CORR TECH-READING				03.0 Cr
Prereq: Sp meth crse in fld select by stu and/or cons instr				
6392	201	11.00-12.00	MTWThF	Wham 208 Stallard
409 CREATIVE TEACHING				03.0 Cr
Prereq: EDUC 302				
6393	301	12.10-02.20	MTWThF	Wham 328 Long
Above section meets 6/13-7/8				
410 CREAT WRIT-PUB SCHL				02.0 Cr
6394	401	09.50-12.00	MTWThF	Wham 210 Lindberg
To be arranged				
Additional meeting times. Above section meets 6/27-7/8				
419 PARENT INVOL IN ED				03.0 Cr
Prereq: 317, student teaching or consent of instructor				
6395	301	09.50-12.00	MTWThF	Wham 210 Quisenberry J
Above section meets 7/11-8/3				
423 TCH EL ENG LANG ART				03.0 Cr
6396	201	07.30-08.30	MTWThF	Wham 208 Shepherd
424 TCH EL SCH SOC STU				03.0 Cr
6397	201	09.50-10.50	MTWThF	Wham 206 Lamb
426 INTRO TCH ELEM SCI				03.0 Cr
6398	301	11.00-12.00	MTWThF	Pull 304 Tomera
		12.10-01.00	MTWThF	Pull 310
Above section meets 6/13-7/8				
435 LIT FOR CHILDREN				03.0 Cr
6399	301	07.30-09.40	MTWThF	Wham 210 Steinruck
Above section meets 7/11-8/3				
6400	401	12.10-04.40	MTWThF	Wham 210 Matthias
Above section meets 6/13-6/24				
438 INTRO-TECH SERVICES				03.0 Cr
6401	201	01.20-03.30	M W F	Pull 310 Dale
439 BASIC REF SOURCES				03.0 Cr
6402	201	09.50-10.50	MTWThF	Pull 318 Cox
440 SELECTION OF MEDIA				03.0 Cr
6403	201	07.30-08.30	MTWThF	Pull 318 Spigle
450 PHOTOG FOR TEACHERS				03.0 Cr
6404	301	07.30-09.40	MTWThF	Pull 310 Butts
Above section meets 6/13-7/8				
458 CLASSRM TCH WITH TV				03.0 Cr
6405	401	12.10-05.00	MTWThF	Wham 112 Klasek
Above section meets 7/25-8/3				
462 MID & JR H.S. PROG				03.0 Cr
6406	401	12.10-04.40	MTWThF	Wham 328 Aikman
Above section meets 7/11-7/22				
464 STUDENT ACTIVITIES				02.0 Cr
6407	301	07.30-09.40	M W F	Wham 319 Boykin
Above section meets 7/11-8/3				
469 TCH SOC STU-SEC SCH				02.0 Cr
6408	301	02.30-04.40	M W F	Wham 328 Solliiday
Above section meets 6/13-7/8				
498C WORKSHOPS-LANG ARTS				02.0 Cr
6409	501	08.00-05.00	MTWThF	Wham 210 Matthias
To be arranged				
Additional meeting times. Above section meets 6/5-6/11				
498E WORKSHOPS-MATH				03.0 Cr
6410	401	12.10-04.40	MTWThF	Wham 210 Karmos
Above section meets 6/27-7/8				
498I WORKSHOPS-ELEM ED				03.0 Cr
6411	860	01.00-05.00	MTWThF	Kaskas Bradfield J
Above section meets June 27 - July 8				
498M WORKSHOPS-INSTRUCT.				03.0 Cr
6412	401	12.10-04.40	MTWThF	Wham 210 Jacko
Above section meets 7/25-8/3				

500 RESEARCH METH IN ED				03.0 Cr
6413	201	09.50-10.50	MTWThF	Pull 304 Rubba 03.0 Cr
To be arranged				
Other times TBA				
6414	202	09.50-10.50	MTWThF	Pull 304 Rubba 03.0 Cr
To be arranged				
Other times TBA				
502 ED DISADV-RES & TCH				
6415	401	12.10-04.40	MTWThF	Wham 210 Grant 03.0 Cr
Above section meets 7/11-7/22				
504 SYST APPRO TO INSTR				
6416	301	09.50-12.00	MTWThF	Pull 310 Klasek 03.0 Cr
Above section meets 7/11-8/3				
508 SUPERV-PROF ED EXP				
6417	860	08.00-01.00	MTWThF	Kaskas Bradfield L 03.0 Cr
Above section meets June 27 - July 8				
509 FOUND OF ENVIRON ED				
6418	401	12.30-03.45	MTWThF	Pull 304 Hungerford 03.0 Cr
To be arranged				
Other times TBA. Meets 6/13-7/1. Reg also in CIM 593				
511 SEM PSYC EL SCH SUB				
6419	301	07.30-09.40	MTWThF	Wham 210 Morpurgo 03.0 Cr
Above section meets 6/13-7/8				
512 READING ELEM SCHL				
6420	201	01.20-02.20	MTWThF	Wham 208 Stallard 03.0 Cr
517 EAR CHILDHD-ORG,ADM				
Prereq: 316, 518, or consent of instructor				
6421	301	12.10-02.20	MTWThF	Wham 206 Morpurgo 03.0 Cr
Above section meets 7/13-7/8				
521A DIAG,CORR-READ DIS				
Prereq: 512 or 561 and consent of instructor				
6422	201	07.30-09.40	MTWThF	Wham 212 Hill 04.0 Cr
Concurrent reg in 521b required				
521B DIAG,CORR-READ DIS				
Prereq: 512 or 561 and consent of instructor				
6423	201	09.50-12.10	MTWThF	Wham 212 Hill 04.0 Cr
Concurrent reg in 521a required				
526 PROB-EL SCHL SCI ED				
Prereq: 426				
6424	301	07.30-09.40	MTWThF	Pull 304 Tomera 03.0 Cr
Above section meets 6/13-7/8				
531 EL SCHL CURRICULUM				
6425	201	11.00-12.00	MTWThF	Wham 206 Sloan 03.0 Cr
532 RESEARCH IN ELEM ED				
6426	201	02.30-04.40	M W F	Wham 206 Quisenberry N 03.0 Cr
533 INST LEADERSHP-ELED				
6427	201	07.30-08.30	MTWThF	Wham 206 Lamb 03.0 Cr
538 ORG-NONBOOK COLLECT				
Prereq: 438				
6428	201	01.20-03.50	M W	Pull 318 Cox 03.0 Cr
542 ADM ED MEDIA CTR				
Prereq: 442				
6429	201	08.40-09.40	MTWThF	Pull 318 Spigle 03.0 Cr
544 ADM-COMM COL MEDIA				
6430	201	01.20-03.50	T Th	Pull 318 Dale 03.0 Cr
548 PROD,UTIL OF MEDIA				
6431	301	08.00-05.00	MTWThF	Pull 307 Jurgemeyer 05.0 Cr
		03.00-05.00	MTWTh	Pull 307 03.0 Cr
Meets: 8 a.m.-5 p.m. 5/31-6/10 & only 3-5 p.m. 6/13-7/8				
550 HISTORY OF MEDIA				
6432	301	11.00-01.10	MTWThF	Pull 318 Butts 03.0 Cr
Above section meets 6/13-7/8				
561 READ IN SECOND SCHL				
6433	201	02.30-03.30	MTWThF	Wham 208 Jackson J 03.0 Cr
569 SEC SOCIAL STU EDUC				
6434	301	02.30-04.40	MTWThF	Wham 328 Solliday 03.0 Cr
571 SEC SCHL CURRICULUM				
6435	301	07.30-09.40	MTWThF	Wham 319 Jackson M 03.0 Cr
Above section meets 6/13-7/8				
580 DEV-SUBJ AREAS-SEC				
6436	301	09.50-12.00	MTWThF	Wham 321 Jackson M 03.0 Cr
Above section meets 6/13-7/8				

582 RESEARCH-SECOND ED				03.0 Cr
6437	201 02.30-04.40	M W F	Wham	206 Long
585A SEMINARS-CURRICULUM				03.0 Cr
Prereq: Consent of instructor				
6438	301 09.50-12.00	MTWThF	Wham	321 Boykin
Above section meets 7/11-8/3				
585B SEM-SUPR/INSTR IMPR				03.0 Cr
Prereq: Consent of instructor				
6439	850 08.00-12.00	MTWThF	W Spgs	Pope C
Above section meets June 13 - June 24				
585G SEMINARS-SOCIAL STU				03.0 Cr
Prereq: Consent of instructor				
6440	850 To be arranged		Wsh Dc	Solliday M
Above section meets June 4 - 17				
585I SEMINARS-ELEM EDUC				03.0 Cr
Prereq: Consent of instructor				
6441	860 08.00-12.00	MTWThF	Kaskas	Lindberg D
Above section meets June 13 - June 24				
585M SEMINARS-INSTRUCT				03.0 Cr
Prereq: Consent of instructor				
6442	201 01.20-02.20	MTWThF	Wham	202 Dixon
586 CURRIC DES & DEVEL				03.0 Cr
6443	201 02.30-04.40	T Th	Wham	206 Sloan
To be arranged				
Other times TBA				
590A READINGS-CURRICULUM				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6444	700 To be arranged			
590B READINGS-SUPERVIS				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6445	700 To be arranged			
590C READINGS-LANG ARTS				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6446	700 To be arranged			
590D READINGS-SCIENCE				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6447	700 To be arranged			
590E READINGS-MATHEMATIC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6448	700 To be arranged			
590F READINGS-READING				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6449	700 To be arranged			
590G READINGS-SOCIAL STU				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6450	700 To be arranged			
590H READING-EARLY CHILD				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6451	700 To be arranged			
590I READINGS-ELEM EDUC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6452	700 To be arranged			
590J READINGS-MIDDLE SCH				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6453	700 To be arranged			
590K READINGS-SEC EDUC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6454	700 To be arranged			
590L READ-DISADVAN CHILD				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6455	700 To be arranged			
590M READINGS-INSTRUCT				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6456	700 To be arranged			
590N READINGS-EDUC MEDIA				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6457	700 To be arranged			
590O READINGS-ENVIR EDUC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6458	700 To be arranged			
593A INDIV RES-CURRIC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6459	700 To be arranged			
593B INDIV RES-SUPERVIS				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6460	700 To be arranged			
593C INDIV RES-LANG ARTS				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6461	700 To be arranged			
593D INDIV RES-SCIENCE				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6462	700 To be arranged			
593E INDIV RES-MATH				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6463	700 To be arranged			
593F INDIV RES-READING				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6464	700 To be arranged			
593G INDIV RES-SOC STU				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6465	700 To be arranged			
593H RES-EARLY CHLDHD ED				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6466	700 To be arranged			
593I INDIV RES-ELEM EDUC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6467	700 To be arranged			
593J INDIV RES-MID SCH				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6468	700 To be arranged			
593K IND RES-SECOND EDUC				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6469	700 To be arranged			
593L IND RES-DISADV CHLD				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6470	700 To be arranged			
593M IND RES-INSTRUCTION				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6471	700 To be arranged			
593N IND RES-EDUC MEDIA				01.0 to 03.0 Cr
Prereq: Consent of instructor				
6472	700 To be arranged			
593O RES-ENVIRONMENTL ED				02.0 Cr
Prereq: Consent of instructor				
6473	401 12.30-03.45	MTWThF	Pull	304 Hungerford
To be arranged				
Other times TBA. Meets 6/13-7/1. Concur enrol in 509				
6474	700 To be arranged			
594A PRACTICUM-CURRIC				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6475	700 To be arranged			
594B PRACT-SUPR/INST IMP				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6476	700 To be arranged			
594C PRACTICUM-LANG ARTS				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6477	700 To be arranged			
594D PRACTICUM-SCIENCE				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6478	700 To be arranged			
594E PRACTICUM-MATH				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6479	700 To be arranged			
594F PRACTICUM-READING				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6480	700 To be arranged			
594G PRACTICUM-SOC STU				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6481	700 To be arranged			
594H PRACT-EARLY CHLD ED				03.0 to 09.0 Cr
Prereq: Consent of instructor				
6482	700 To be arranged			

594I PRACTICUM-ELEM ED	03.0 to 09.0 Cr
Prereq: Consent of instructor	
6483 700 To be arranged	
594J PRACT-MIDDLE SCHL	03.0 to 09.0 Cr
Prereq: Consent of instructor	
6484 700 To be arranged	
594K PRACTICUM-SECOND ED	03.0 to 09.0 Cr
Prereq: Consent of instructor	
6485 700 To be arranged	
594L PRACT-DISADV CHILD	03.0 to 09.0 Cr
Prereq: Consent of instructor	
6486 700 To be arranged	
594M PRACT-INSTRUCTION	03.0 to 09.0 Cr
Prereq: Consent of instructor	
6487 700 To be arranged	
594N PRACTICUM-ED MEDIA	03.0 to 09.0 Cr
Prereq: Consent of instructor	
6488 700 To be arranged	
594O PRACT-ENVIRON EDUC	03.0 to 09.0 Cr
Prereq: Consent of instructor	
6489 700 To be arranged	
595A INTERNSHIP-CURRIC	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6490 700 To be arranged	
595B INTERN-SUP/INST IMP	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6491 700 To be arranged	
595C INTERNSHIP-LANG ART	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6492 700 To be arranged	
595D INTERNSHIP-SCIENCE	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6493 700 To be arranged	
595E INTERNSHIP-MATH	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6494 700 To be arranged	
595F INTERNSHIP-READING	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6495 700 To be arranged	
595G INTERNSHIP-SOC STU	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6496 700 To be arranged	
595H INTERN-EARLY CHD ED	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6497 700 To be arranged	
595I INTERNSHIP-ELEM ED	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6498 700 To be arranged	
595J INTERN-MIDDLE SCHL	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6499 700 To be arranged	
595K INTERN-SECONDARY ED	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6500 700 To be arranged	
595L INTERN-DISADV CHILD	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6501 700 To be arranged	
595M INTERNSHIP-INSTRUCT	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6502 700 To be arranged	
595N INTERNSHIP-ED MEDIA	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6503 700 To be arranged	
595O INTERN-ENVIRON EDUC	02.0 to 08.0 Cr
Prereq: Consent of instructor	
6504 700 To be arranged	
596 INDEPEND INVESTIGAT	03.0 to 06.0 Cr
Prereq: Consent of instructor	
6505 700 To be arranged	
599 THESIS	02.0 to 06.0 Cr
6506 700 To be arranged	

600 DISSERTATION	01.0 to 16.0 Cr
6507 700 To be arranged	

Dental Hygiene (DH)

209 DENTAL HYGIENE CLIN	03.0 Cr
Prereq: 210a,b	
6508 201 07.30-11.20 M W F F3 132	
Also meets in f1 109	
6509 202 01.00-04.50 M W F F3 132	
Also meets in f1 109	
217 DENTAL NUTRITION	02.0 Cr
Prereq: CHEM 140a,b, PHSL 301	
6510 201 12.00 M F F1 107 Ahlf	
04.00-06.00 T H Ec 208	
218B DENTAL RADIOLOGY	02.0 Cr
Prereq: 218a and 136	
6511 201 12.00-01.00 W F1 107 Wohlwend	
01.00-03.50 M F3 134	
04.00-06.00 Th H Ec 208	
6512 202 12.00-01.00 W F1 107 Wolaver	
01.00-03.50 W F3 134	
04.00-06.00 Th H Ec 208	
6513 203 12.00-01.00 W F1 107 Wohlwend	
08.00-10.50 M F3 134	
04.00-06.00 Th H Ec 208	
6514 204 12.00-01.00 W F1 107 Wolaver	
08.00-10.50 W F3 134	
04.00-06.00 Th H Ec 208	

Design (DES)

100 STRUCTURE & FORM	02.0 Cr
6516 201 08.40-09.40 M W F 0849 100 Schoen A	
152 INTR SYST APPROACH	03.0 Cr
6517 201 09.50-10.50 MTWThF 0861 101 Ellner J	
200 BASIC REPRES FUNDAM	03.0 Cr
Prereq: 150 and 152; or consent of chairman	
6518 201 08.00-12.00 M W F 0862 101 Newman & Kachel	
201 SURVEY OF DESIGN	02.0 Cr
Prereq: Consent of chairman	
6519 201 01.20-02.50 T Th 0861 101 Roan H	
202 BASIC MATRLS & PROC	02.0 Cr
6520 201 01.20-02.20 M W F 0848 101 Busch L	
300 GRAPHIC REPRODUCT	03.0 Cr
Prereq: 200,201,202,250,252,254; or consent of chairman	
6521 201 02.30-03.30 MTWThF 0861 101 Newman G	
301 STRUCTURES FOR DES	03.0 Cr
Prereq: 200,201,202,250 & 254 or consent of chairman	
6522 201 03.40-04.40 MTWThF 0849 100 Schoen A	
312 PRODUCT DES ANALY	02.0 Cr
Prereq: Cons of chairman, declared specialty in product des	
6523 201 11.00-12.00 M W F 0847 101 Archer R	
332 SURVEY OF URBAN DES	02.0 Cr
6524 201 09.50-10.50 M W F 0862 100 Kachel T	
395 INDEPENDENT STUDY	02.0 to 06.0 Cr
Prereq: 200,201,202,250,252 & 254, or consent of chairman	
6525 700 To be arranged	
400 SELF PRESENTATION	03.0 Cr
Prereq: 200,201,202,250,252,254 plus 9hrs 300 lev or consent	
6526 201 01.20-02.20 MTWThF 0862 100 Newman & Kachel	
401 PROB SOLV-APPL DES	03.0 Cr
Prereq: GSC 205, DES 200,201,202,250,252 & 254 or consent	
6527 201 08.40-09.40 MTWThF 0853 101 Growsowsky H	
412 PRACT-PRODUCT DES	04.0 Cr
Prereq: 362; declared specialization in product design	
6528 201 02.30-03.30 M W F 0853 101 Busch	
02.30-04.30 T Th 0853 101 Archer R	
413 PROF PRACT-PROD DES	02.0 Cr
Prereq: Declared specialization in product design	
6529 201 10.30-12.00 T Th 0861 102 Pratt P	

495 SEMINAR IN DESIGN

03.0 to 09.0 Cr

Prereq: Cons of chairman, 9hrs 300 level core crs, sr stand

6530 700 To be arranged

Economics (ECON)**214 INTRO TO MACROECON**03.0 Cr¹

6533 201 09.50-10.50 MTWThF Faner 1004

6534 202 12.10-01.10 MTWThF Faner 1004

215 INTRO TO MICROECON03.0 Cr¹

6535 201 11.00-12.00 MTWThF Faner 1005

6536 202 01.20-02.20 MTWThF Faner 1006

300 CONTEMP ECON PROB03.0 to 09.0 Cr¹

Prereq: 214, 215 or GSB 211 or consent of instructor

6537 201 03.40-04.40 MTWThF Faner 1028

301 ECONOMIC READINGS01.0 to 06.0 Cr¹

Prereq: Consent of instructor and dept chairman

6538 700 To be arranged

315 MONEY & BANKING I03.0 Cr¹

Prereq: 214 or consent of instructor

6539 201 08.40-09.40 MTWThF Faner 1006

340 INTERMED MICROECON03.0 Cr¹

Prereq: 215 or consent of instr

6540 201 12.10-01.10 MTWThF Faner 2463

341 INTERMED MACROECON03.0 Cr¹

Prereq: 214 or consent of instr

6541 201 02.30-03.30 MTWThF Faner 1006

429 INTERNAT TRADE & FIN03.0 Cr¹

Prereq: 340 and 341, or consent of instructor

6542 201 12.10-01.10 MTWThF Faner 2512

440 PRICE, OUTPUT, ALLOCA03.0 Cr¹

Prereq: 215 or consent of instructor

6543 201 12.10-01.10 MTWThF Faner 2463

441 CONTEM MACROECON TH03.0 Cr¹

Prereq: 214 or consent of instructor

6544 201 02.30-03.30 MTWThF Faner 1006

465 MATH ECON I03.0 Cr¹

Prereq: 340 or 440, and MATH 117 or 140, or consent of instr

6545 201 09.50-10.50 MTWThF H Ec 104

500 ECONOMICS SEMINAR

03.0 Cr

Prereq: Consent of instructor

6546 201 11.00-12.00 MTWThF Faner 4135

6547 202 01.20-02.20 MTWThF Faner 4135

Students may take both sections concurrently

501 ECONOMICS READING

01.0 to 21.0 Cr

Prereq: Consent of instr & chairman

6548 700 To be arranged

599 THESIS

01.0 to 06.0 Cr

6549 700 To be arranged

600 DISSERTATION

01.0 to 16.0 Cr

6550 700 To be arranged

Education (EDUC)**200A SKLS ANALY&INDV LRN**01.0 to 02.0 Cr²

Prereq: Consent of instructor

6551 201 To be arranged

Above section-enrollment by consent of instr only

201 TCH ROLE-PUB SCH ED01.0 Cr²

6552 201 08.40-09.40 T Th Wham 302

300A STU TCH-PROV CERTIF

05.0 to 08.0 Cr

6553 201 To be arranged

Agriculture *

6554 202 To be arranged

Art *

6555 203 To be arranged

Biological Sciences *

6556 204 To be arranged

Business *

6557 205 To be arranged

Early Childhood *

6558 206 To be arranged

Elementary *

6559 207 To be arranged

English *

6560 208 To be arranged

Foreign Languages *

6561 209 To be arranged

Health Education *

6562 210 To be arranged

Home Economics *

6563 211 To be arranged

Instructional Materials *

6564 212 To be arranged

Journalism *

6565 213 To be arranged

Language arts *

6566 214 To be arranged

Mathematics *

6567 215 To be arranged

Music *

6568 216 To be arranged

Occupational Education *

6569 217 To be arranged

Physical Education *

6570 218 To be arranged

Physical Sciences *

6571 219 To be arranged

Social Studies *

6572 220 To be arranged

Special Education-Behaviorally Disordered *

6573 221 To be arranged

Special Education-Learning Disabled *

6574 222 To be arranged

Special Education - Mentally Retarded *

6575 223 To be arranged

Speech *

6576 224 To be arranged

Speech Pathology *

6577 225 To be arranged

Special Education-TMH*

* EDUC 300A- Enrollment by permission of Elaine Alden, Wham 135.

301 HUM GRTH, DEV & LRN

02.0 Cr

Prereq: GSB 202 or equiv, admission to teacher ed program

6578 201 09.50-10.50 M W F Wham 228

6579 202 09.50-11.20 T Th Wham 228

6580 203 11.00-12.00 M W F Wham 228

6581 204 01.20-02.20 T Th Wham 228

302 BAS TECH & PROC-INS

02.0 Cr

Prereq: Admission to teacher education program

6582 201 To be arranged

Above section restricted **

6583 202 01.20-02.20 M W F Wham 319

Above section restricted **

** Enrollment by restricted class card only -obtainable in Wham 135. Sect 201 for provisionally certified teachers only.

303 SCHOOL & SOCIETY

02.0 Cr

Prereq: Admission to teacher education program

6584 201 09.50-11.20 T Th Wham 326

6585 202 11.00-12.00 M W F Wham 328

6586 203 12.10-01.10 M W F Wham 326

6587 204 12.10-01.40 T Th Wham 326

6588 205 01.20-04.50 M W Wham 329

6589 206 06.00-09.00 pm T Wham 326

304A AV METHODS IN EDUC

02.0 Cr

Prereq: Admission to teacher education program

6590 201 11.00-12.00 M W F Lawson 101

304B CAREER EDUCATION

02.0 Cr

Prereq: Admission to teacher education program

6591 201 11.00-12.00 M W F Pull 39

304C EVAL IN CLASSROOM

02.0 Cr

Prereq: Admission to teacher education program

6592 201 09.50-10.50 M W Pull 119 Bardo H

11.00-12.00 T Lawson 121

6593 202 09.50-10.50 T Th Wham 319 Bardo H

11.00-12.00 T Lawson 121

304D TCH-MIDDLE & JR HS

02.0 Cr

Prereq: Admission to teacher education program

6594 201 11.00-12.00 M W F Wham 326 Jackson M

590 SEM-CULTURAL FOUND

Prereq: Admission to the PH.D. program in education

6595	201	09.50-12.00	M WTh	Wham	301A	Moore
6596	202	01.20-04.50	M W	Wham	301A	Mckenzie

04.0 Cr

591 SEM-BEHAV FOUND

Prereq: Admission to the PH.D. program in education

6597	201	08.40-11.15	M W	Wham	229	Cody J
		08.40-11.00	T	Wham	229	
6598	202	01.20-04.00	M W	Wham	301B	Kelly
		01.20-03.30	Th	Wham	301B	

04.0 Cr

EDL 41

Educational Leadership (EDL)

421 LAW, TEACHER, & STU

6600	201	08.40-09.40	MTWThF	Wham	312	Shelton
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03.0 Cr

432 EDUC & SOC FORCES

6601	201	06.30-09.10 pm	M W	Wham	305	Moore
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03.0 Cr

500 EDUC RESEARCH METH

6602	201	08.40-09.40	MTWThF	Wham	329	Bach
6603	202	06.30-09.10 pm	T Th	Wham	305	Bach

03.0 Cr

501 ED ADM-TASKS, PROCES

6604	201	09.50-12.20	M W	Wham	329	Ripple
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03.0 Cr

503 ED ADM-INTR TO THEO

6605	201	09.50-12.20	T Th	Wham	329	Sasse
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03.0 Cr

507 SEC SCH PRINCIPAL

6606	201	06.30-09.10 pm	M W	Wham	312	Buser R
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03.0 Cr

511 ORG & ADMIN-CURRIC

6607	860	08.00-12.00	MTWThF	Kaskas		Verduin J
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03.0 Cr

Above section meets June 13 - June 24

513 SUPERVIS OF INSTRUC

6608	201	09.50-12.20	T Th	Wham	312	Buser R
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03.0 Cr

515 CURR ISSUES-ED ADM

6609	401	01.00-05.00	MTWThF	Pull	211	Kaiser
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03.0 Cr

To be arranged

Above sect - Financial Acct-meets June 13 - June 24

6610	402	01.00-05.00	MTWThF	Pull	211	Kaiser
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To be arranged

Above sect - Prof Negotiations-meets June 27 - July 8

6611	403	01.00-05.00	MTWThF	Pull	211	Verduin
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To be arranged

Above sect - Curr Evaluation-meets July 11 - July 22

6612	404	06.00-10.00 pm	MTWThF	Wham	305	Matthias W
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To be arranged

Above sect- Female Administrator-meets May 30- June 10

519 ILLINOIS SCHOOL LAW

6613	201	06.30-09.10 pm	M W	Wham	307	Shelton
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03.0 Cr

531 SCHOOL BOARDS & POL

6614	201	09.50-12.20	M W	Wham	312	Stuck
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03.0 Cr

533 ELEM SCH PRINCIPAL

6615	860	06.00-10.00 pm	MTWThF	Kaskas		Matthias W
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03.0 Cr

Above section meets May 16 - May 27

551 ED LDRSH-POLIT ED

6616	201	06.30-09.10 pm	M W	Pull	229	Ripple
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03.0 Cr

553 ED LDRSH-SYST, ACCT

6617	201	06.30-09.10 pm	M W	Wham	321	Stuck
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03.0 Cr

554 SEMINAR-PHIL OF ED

6618	201	09.50-12.20	M W	Faner	2204	Mckenzie
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03.0 Cr

590A READ-ADMINISTRATION

Prereq: Consent of chairman

6619	700	To be arranged				
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01.0 to 06.0 Cr

590B READINGS-BUILDINGS

Prereq: Consent of chairman

6620	700	To be arranged				
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01.0 to 06.0 Cr

590C READ-SUPERV OF CURR

Prereq: Consent of chairman

6621	700	To be arranged				
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01.0 to 06.0 Cr

590D READINGS-FINANCE

Prereq: Consent of chairman

6622	700	To be arranged				
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01.0 to 06.0 Cr

590E READ-PHIL OF EDUC

Prereq: Consent of chairman

6623	700	To be arranged				
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01.0 to 06.0 Cr

590J READINGS-SOC OF ED

Prereq: Consent of chairman

6624	700	To be arranged				
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01.0 to 06.0 Cr

590K READ-ADULT, COMM ED

Prereq: Consent of chairman

6625	700	To be arranged				
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01.0 to 06.0 Cr

593A INDIV RES-ADMIN

Prereq: Consent of chairman

6626	700	To be arranged				
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01.0 to 03.0 Cr

593C INDIV RES-CURRIC

Prereq: Consent of chairman

6627	700	To be arranged				
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01.0 to 03.0 Cr

593E INDIV RES-SCH LAW

Prereq: Consent of chairman

6628	700	To be arranged				
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01.0 to 03.0 Cr

593F INDIV RES-SUPERVIS

Prereq: Consent of chairman

6629	700	To be arranged				
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01.0 to 03.0 Cr

593G IND RES-COMPAR EDUC

Prereq: Consent of chairman

6630	700	To be arranged				
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01.0 to 03.0 Cr

593H IND RES-HIST OF ED

Prereq: Consent of chairman

6631	700	To be arranged				
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01.0 to 03.0 Cr

593I IND RES-PHIL OF ED

Prereq: Consent of chairman

6632	700	To be arranged				
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01.0 to 03.0 Cr

593J IND RES-SOC OF EDUC

Prereq: Consent of chairman

6633	700	To be arranged				
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01.0 to 03.0 Cr

593K IND RES-ADLT, COM ED

Prereq: Consent of chairman

6634	700	To be arranged				
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01.0 to 03.0 Cr

595 INTERNSHIPS-ED ADM

6635	700	To be arranged				
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01.0 to 08.0 Cr

596 INDEPEND INVESTIGAT

6636	700	To be arranged				
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01.0 to 06.0 Cr

6637	840	To be arranged		Englnd		Matthias W
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Above section meets May 30 - July 22, Cornwall, Eng.

597 EXTERNSHIP

6638	700	To be arranged				
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01.0 to 08.0 Cr

599 THESIS

6639	700	To be arranged				
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01.0 to 06.0 Cr

600 DISSERTATION

6640	700	To be arranged				
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01.0 to 16.0 Cr

Electrical Sciences and Systems Engineering (ESSE)

421 DIGIT COMP-PHYS RES

Prereq: ENGR 222 & MATH 305

6641	201	01.20-02.20	M W F	Tech D	108	
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02.0 Cr¹

486 ELEC ENERGY SOURCES

Prereq: Engr 385 or consent of instr

6642	201	11.00-12.00	MTWThF	Tech A	308	
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03.0 Cr¹

492 SPEC PROBS IN ENGR

Prereq: Senior standing and consent of instructor

6643	700	To be arranged				
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01.0 to 05.0 Cr¹

580 SEMINAR

6644	201	To be arranged				
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01.0 to 04.0 Cr

592 SPEC INVESTIGA ENGR

Prereq: Graduate standing & consent of instructor

6645	700	To be arranged				
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01.0 to 05.0 Cr

599 THESIS

6646	700	To be arranged				
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01.0 to 06.0 Cr

Electronic Data Processing (EDP)

107 ELEC D.P. CONCEPTS

6647	201	01.20-02.20	MTWThF	Faner	1028	
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03.0 Cr¹

207	DATA PROCESS PROJ	06.0 Cr
Prereq: Consent of department		
6648	201 To be arranged	
209	DATA PROC INTERNSHP	01.0 to 08.0 Cr ²
Prereq: Consent of department		
6649	201 To be arranged	
217	COMPUT FOR BUS ADM	03.0 Cr
Prereq: Completion of GS math requirement or equivalent		
6650	201 08.40-09.40 MTWThF Faner 1028	
6651	202 09.50-10.50 MTWThF Faner 1006	
6652	203 12.10-01.10 MTWThF Faner 1006	

Electronics Technology (ELT)

102	ELECT CIRCUIT THEOR	05.0 Cr
Prereq: 101		
6653	201 08.40-09.40 MTWThF Nkrs B 142 Fahlsing T	
	12.10-01.10 MTWThF Nkrs B 142	
112	ELECT CIRCUITS LAB	06.0 Cr
Prereq: 111, and concur enroll in 102		
6654	201 09.50-11.50 MTWThF Nkrs C 107	
	01.20-03.30 MTWThF Nkrs C 107	

Engineering (ENGR)

222	COMPUT METH-ENG&TEC	02.0 Cr ¹
Prereq: Math 111		
6655	201 08.40-09.40 M W F Tech A 111	
	11.00-01.10 T Tech A 208	
6656	202 08.40-09.40 M W F Tech A 111	
	12.10-02.20 W Tech A 420	
6657	203 08.40-09.40 M W F Tech A 111	
	03.40-05.50 Th Tech A 122	
260A	MEC OF RIGID BODIES	02.0 Cr
Prereq: Mathematics 150		
6658	201 07.30-08.30 M W F Tech A 308	
300	ENGR THERMODYNAMICS	03.0 Cr
Prereq: 200		
6659	201 08.40-09.40 MTWThF Tech A 308	
302	ENGR HEAT TRANSFER	03.0 Cr
Prereq: 200, 222; MATH 305 or concurrent enrollment		
6660	201 02.30-03.30 MTWThF Tech A 210	
311	MEC OF DEFOR BODIES	03.0 Cr
Prereq: 260a		
6661	201 01.20-02.20 MT Th Tech A 210	
	12.10-02.20 W Tech A 210	
312	MAT SCI FUNDAMENTAL	03.0 Cr
Prereq: PHYS 205, MATH 250		
6662	201 08.40-09.40 M W F Tech A 420	
	07.30-09.40 T Tech B 143	
313	FLUID MECHANICS	03.0 Cr
Prereq: 260b or concurrent enrollment		
6663	201 11.00-12.00 M W F Tech A 210	
	11.00-01.10 T Tech A 210	
335	ELECTRIC CIRCUITS	03.0 Cr ¹
Prereq: Math 250		
6664	201 09.50-10.50 MTWThF Tech A 210	
361	ENGINEERING ECON	02.0 Cr
Prereq: Mathematics 111 or equivalent		
6665	201 01.20-02.20 M W F Tech A 111	
385	ELECTROMECHANICAL ENER CON	03.0 Cr ¹
Prereq: 335		
6666	201 07.30-08.30 MTWThF Tech A 210	

Engineering Biophysics (EB)

598	INTERNSHIP-ENG BIOP	01.0 to 06.0 Cr
6667	201 To be arranged	
599	THESIS	01.0 to 06.0 Cr
6668	201 To be arranged	

Engineering Mechanics and Materials (EMM)

462	MATR METH-STRUC ANA	03.0 Cr
Prereq: Engr 222 and 311 or consent of instructor		
6670	201 To be arranged	

470	ENGR ANALYSIS	03.0 Cr
Prereq: Math 305 or equivalent		
6671	201 To be arranged	
492A	PROB-STRESS ANALY	01.0 to 05.0 Cr
Prereq: Consent of instructor		
6672	700 To be arranged	
492B	PROB-FLD FLOW ANALY	01.0 to 05.0 Cr
Prereq: Consent of instructor		
6673	700 To be arranged	
492C	PROB-STRUCTURL ENGR	01.0 to 05.0 Cr
Prereq: Consent of instructor		
6674	700 To be arranged	
492D	PROB-COMPUTAT MECH	01.0 to 05.0 Cr
Prereq: Consent of instructor		
6675	700 To be arranged	
492E	PROB-MATERIALS ENGR	01.0 to 05.0 Cr
Prereq: Consent of instructor		
6676	700 To be arranged	
492F	PROBLEMS-DYNAMICS	01.0 to 05.0 Cr
Prereq: Consent of instructor		
6677	700 To be arranged	
580	SEMINAR	01.0 to 04.0 Cr
Prereq: Graduate standing		
6678	201 To be arranged	
592A	INVEST-STRESS ANALY	01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
6679	700 To be arranged	
592B	INV-FLD FLOW ANALY	01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
6680	700 To be arranged	
592C	INV-STRUCTURAL ENGR	01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
6681	700 To be arranged	
592D	INV-COMPUTAT MECH	01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
6682	700 To be arranged	
592E	INV-MATERIALS ENGR	01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
6683	700 To be arranged	
592F	INVEST-DYNAMICS	01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
6684	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
6685	700 To be arranged	

Engineering Technology (ET)

104	ENGR DRAWING II	03.0 Cr
Prereq: 103		
6686	201 07.30-09.40 M W F Tech A 207	
245A	ELEC SYSTEMS-INDUST	03.0 Cr
Prereq: Math 111		
6687	201 02.30-04.40 M W F Tech D 104	
	02.30-03.30 F Tech D 104	
260B	DYNAMICS	03.0 Cr
Prereq: 260a		
6688	201 09.50-10.50 MTWThF Tech A 308	
313A	ELEM HEAT POWER	03.0 Cr
Prereq: Math 150		
6689	201 01.20-02.20 MTWThF Tech A 310	
318A	HYDRAULIC & PNEUMAT	02.0 Cr
Prereq: 260b or concurrent enrollment		
6690	201 12.10-01.10 M W F Tech A 308	
492	SP PROB-INDUS & TEC	01.0 to 06.0 Cr
Prereq: Consent of instructor		
6691	700 To be arranged	

English (ENG)

290	INTERMED EXPO WRIT	03.0 Cr
Prereq: GSD 117, 118, or 119, or equiv		
6719	201 08.40-09.40 MTWThF Faner 2367 Mitchell	
6720	202 11.00-12.00 MTWThF Faner 2367 Hilliard	
6721	203 01.20-02.20 MTWThF Faner 2365 Menichols	
302	LIT HIST OF ENGLAND	03.0 Cr
6722	201 08.40-09.40 MTWThF Faner 2365 Hatton	

309 LIT HIST OF U S 03.0 Cr

6723 201 11.00-12.00 MTWThF Faner 2365 Stibitz

390 ADVANCED COMP 03.0 Cr

Prereq: C aver in GSD 101 & 117,118 or 119, or equivalent

6724 201 01.20-02.20 MTWThF Faner 2367 Dodd

436 MAJOR AMER WRITERS 03.0 Cr¹

6725 201 08.40-09.40 MTWThF Faner 2512 Stibitz

459 AMER FIC OF 20TH C 03.0 Cr¹

6726 201 09.50-10.50 MTWThF Faner 1230 Taylor

465 MOD CONTINENT DRAMA 03.0 Cr¹

6727 201 11.00-12.00 MTWThF Faner 2512 Raizis

468 AMERICAN DRAMA 03.0 Cr¹

6728 201 12.10-01.10 MTWThF Faner 1228 Peterson

472 SHAKESPEARE-II 03.0 Cr

6729 201 01.20-02.20 MTWThF Faner 2512 Donow

Above section crosslisted with AJ 473 Restr to u-grad

492 CREAT WRITE-SR PROJ 03.0 to 09.0 Cr¹

Prereq: Consent of instructor

6730 700 To be arranged

493 SP TOPICS-LIT & LAN 03.0 Cr¹

Prereq: Consent of instructor

6731 201 07.30-08.30 MTWThF Faner 2512 Rainbow

Topic: Mediaeval Romances

499 READINGS-LIT & LANG 02.0 to 03.0 Cr

6732 700 To be arranged

Topic: Spencer

522 VICTORIAN POETS 03.0 Cr

6733 201 07.30-09.40 M W Faner 2406 Partlow

Topic: Browning

537 LATER 19C AMER WRIT 03.0 Cr

6734 201 09.50-12.00 M W Faner 3113 Moss

Topic: Three Gothicists- Poe, Bierce & Connor

560 ENG RENAISSANC DRAM 03.0 Cr

6735 201 12.10-02.20 M W Faner 3113 Brown

Topic: Marlowe & Schapman

593 SPEC TOP-LIT & LANG 03.0 Cr

6736 201 09.50-12.00 T Th Faner 3113 Rudnick

Topic: Literary Criticism- Stu in the Narrative Mode

595 INDEPENDENT READING 01.0 to 09.0 Cr

Prereq: 24 classroom cr hrs beyond M.A., exclu audit & read

6737 700 To be arranged

600 DISSERTATION 01.0 to 16.0 Cr

6738 700 To be arranged

Family Economics and Management (FE&M)

240 CONSUMER RESOURCES 03.0 Cr

6739 201 08.40-09.40 MTWThF H Ec 102 Kearn J

330 HOUSING 03.0 Cr

6740 201 09.50-10.50 MTWThF H Ec 202 Kearn J

340 CONSUMER PROBLEMS 03.0 Cr

6741 201 08.40-09.40 MTWThF H Ec 201 Brooks T

370 MGT FOR LOW-INC FAM 03.0 Cr

6742 301 12.10-02.20 MTWThF H Ec 306 Edmondson M

Above section meets 6/13-7/8

380 SPECIAL PROBLEMS 02.0 to 06.0 Cr

6743 700 To be arranged

407 WORKSHOP 01.0 to 03.0 Cr

6744 501 To be arranged Brooks T

Above section Educ for Consumers-meets 6/28-7/8.-2 Cr

6745 502 11.00-03.20 MTWThF H Ec 104 Kearn J

Above section Housing for Elderly-meets 6/13-24.-3 Cr

480 WOMEN-HOME,LABR MKT 03.0 Cr

6746 301 12.10-02.20 MTWThF H Ec 104 Edmondson

Above section meets 7/11-8/3

490 READINGS 01.0 to 04.0 Cr

Prereq: 6 hrs in FE&M and consent of chairperson

6747 700 To be arranged

494 FIELD EXPERIENCE 01.0 to 04.0 Cr

Prereq: 370 and cons of chairperson

6748 700 To be arranged

592 SPECIAL PROBLEMS 01.0 to 05.0 Cr

Prereq: 6 hours in FE&M and consent of chairperson

6749 700 To be arranged

599 THESIS 01.0 to 06.0 Cr

6750 700 To be arranged

Finance (FIN)271 BUSINESS LAW I 03.0 Cr¹

6752 201 12.10-01.10 MTWThF Cl 328 Henkel

6753 401 07.30-09.40 MTWThF Cl 328 Waters

Above section meets 6/13-7/8

300 INTERNSHIP IN FIN 03.0 Cr²

Prereq: Consent of department chairman

6754 201 To be arranged Vaughn

301 READINGS IN FINANCE 01.0 to 06.0 Cr²

Prereq: Consent of dept chairman

6755 201 To be arranged

6756 700 To be arranged

320 INTRO TO BUS FIN 03.0 Cr

Prereq: ACCT 222, ECON 215, ADSC 208

6757 201 08.40-09.40 MTWThF Cl 109

6758 202 11.00-12.00 MTWThF Ag 144 Elsaid H

323 INVESTMENTS 03.0 Cr¹

Prereq: Accounting 210 or 221

6759 201 09.50-10.50 MTWThF Cl 328 Vaughn

325 FINANCIAL MARKETS 03.0 Cr

Prereq: Economics 214,215, Administrative Sciences 208

6760 201 11.00-12.00 MTWThF H Ec 306 Gehr A

328 REAL ESTATE 03.0 Cr¹

6761 401 08.30-11.30 MTWThF Cl 328 Tyler S

Above section meets 5/16-6/4

370 LEGAL&SOC ENVIR-BUS 03.0 Cr¹

6762 201 11.00-12.00 MTWThF Cl 109 Henkle J

372 BUSINESS LAW II 03.0 Cr

6763 301 07.30-09.40 MTWThF Cl 328

Above section meets July 11- August 3

475 FORECAST & BUDGET 03.0 Cr

Prereq: 320

6764 201 09.50-10.50 MTWThF Ag 148 Sprecher

Food & Nutrition (F&N)100 FUND OF NUTRITION 03.0 Cr¹

6766 201 08.40-09.40 MTWThF H Ec 101 Osborn D

156 FUNDAMENT OF FOODS 03.0 Cr

6767 201 11.00-12.00 M W H Ec 202 Drayton P

09.50-12.00 T Th H Ec 212 Drayton P

361 FOOD SERV ORG & MGT 03.0 Cr

6768 201 08.40-09.40 MTWThF H Ec 107 Drayton P

371 FIELD EXPERIENCE 02.0 to 04.0 Cr¹

Prereq: 361 or equivalent & consent of chairman

6769 700 To be arranged

420 RECENT DEV IN NUTRI 03.0 Cr¹

Prereq: 320 or equivalent

6770 201 03.40-04.40 M W F H Ec 107 Endres J

2 Additional Hours TBA

481 READINGS 02.0 Cr¹

Prereq: 320 or equiv, consent of instr& dept chairman

6771 700 To be arranged

572 SPECIAL PROBLEMS 02.0 Cr

Prereq: Consent of instructor

6772 700 To be arranged

599 THESIS 01.0 to 06.0 Cr

Prereq: Approval of instructor

6773 700 To be arranged

Foreign Languages and Literatures (FL)

506 RESEARCH PROB-FR 01.0 to 04.0 Cr

6775 201 To be arranged

6776	700	To be arranged							
507	RESEARCH PROB-GER			01.0 to 04.0	Cr				
6777	700	To be arranged							
509	RESEARCH PROB-SPAN			01.0 to 04.0	Cr				
6778	700	To be arranged							

Forestry (FOR)

200	INTRO TO FORESTRY			01.0	Cr ¹				
6779	201 08.40-10.50	W	Ag	214					
	To be arranged								
	Field trip								
201	CLASSIF & SILVICS			03.0	Cr				
	Prereq: Bot 200 and 201								
6780	201 08.40-09.40	MTWThF	Ag	168	Fralish J				
202	TREES & FORESTS LAB			01.0	Cr				
	Prereq: Bot 200 and 201								
6781	201 09.50-12.00	M	F	Ag	187	Fralish J			
300C	FOR RES MEAS FLD ST			01.0	Cr				
	Prereq: 300								
6782	301 To be arranged				Myers C				
	Forestry camp meets May 16- June 18 in AG 102A								
310C	SILVICULTURE FLD ST			02.0	Cr				
	Prereq: 331 and 310								
6783	301 To be arranged				Budelsky C				
	Forestry camp meets May 16- June 18 in AG 102A								
312C	FOR PROTECT FLD STU			02.0	Cr				
	Prereq: For forestry res mgt option only-331,202,312								
6784	301 To be arranged				Roth D				
	Forestry camp meets May 16- June 18 in AG 102A								
320C	FOR-WLND REC FLD ST			01.0	Cr				
6785	301 To be arranged				McCurdy D				
	Forestry camp meets May 16- June 18 in AG 102A								
381	FORESTRY SEMINAR			01.0	Cr				
6786	301 To be arranged								
391	SPEC PROB IN FOR			01.0 to 04.0	Cr				
	Prereq: Junior standing & consent of the dept chairman								
6787	700 To be arranged								
401	ENVIRONMENT EDUCAT			03.0	Cr				
6788	201 07.30-12.00	M	0832	101					
	07.30-08.30	W	0832	101					
	To be arranged								
	Field trips								
422T	PARK MGT FIELD TRIP			02.0	Cr				
	Prereq: 320 or 320c & consent of instr								
6789	201 To be arranged				McCurdy D				
453	ENV IMP ASSESS-FOR			02.0	Cr				
	Prereq: 300, 310, 312, 331, 430, or consent of instructor								
6790	301 07.30-08.30	MTWTh	Ag	168					
	08.40-11.30	T	Th	Ag	187				
	Above section meets July 11 - Aug 3								
492	SPEC STU-HONOR STU			01.0 to 04.0	Cr				
	Prereq: Consent of chairman and 3.0 minimum GPA								
6791	700 To be arranged								
494	PRACTICUM			01.0 to 06.0	Cr				
	Prereq: Consent of instructor								
6792	700 To be arranged								
588	INTERNATL GRAD STU			01.0 to 06.0	Cr				
6793	700 To be arranged								
590	READ-FOR RESOURCES			01.0 to 04.0	Cr				
	Prereq: Consent of instructor								
6794	700 To be arranged								
593	INDIVIDUAL RESEARCH			01.0 to 04.0	Cr				
6795	700 To be arranged								
599	THESIS			01.0 to 06.0	Cr				
6796	700 To be arranged								

French (FR)

190	REVIEW-ELEM FRENCH			05.0	Cr ¹				
6797	201 08.40-09.40	MTWThF	Faner	2083	Aydt				
	09.50-10.50	W	F	Faner	2083				
	09.50-10.50	M	Faner	2083					
	One additional hour								

201A	INTERMEDIATE FRENCH			04.0	Cr ¹				
	Prereq: 123,or two yrs of high school French,or equivalent								
6798	301 09.50-12.50	MTWThF	Pull	215	Gobert				
	01.20-02.20	MT	Th F	Pull	215				
	Above section meets 6/13-7/8								

201B	INTERMEDIATE FRENCH			04.0	Cr ¹				
	Prereq: 201a								
6799	301 09.50-12.00	MTWThF	Pull	215	Kilker				
	01.20-02.20	MT	Th F	Pull	215				
	Above section meets 7/11-8/3								

320	ADV LANGUAGE SKILLS			04.0	Cr ¹				
6800	201 09.50-12.00	T	Th	Faner	2406	Omeara			
	11.00-12.00	M	W	F	Faner	2406	Omeara		

490	INDEP STUDY IN FR			01.0 to 03.0	Cr				
6801	700 To be arranged								

599	THESIS			01.0 to 06.0	Cr				
6802	700 To be arranged								

Geography (GEOG)

258	WORK EXPER IN GEOG			01.0 to 05.0	Cr ²				
	Prereq: Geog major & consent of dept								
6806	700 To be arranged								

300	INTRO TO GEOGRAPHY			03.0	Cr				
6807	201 08.40-09.40	MTWThF	Faner	2533	Horsley & Lieber				

310	INTRO CARTOGRAPHY			03.0	Cr ¹				
	Prereq: 300 or consent								
6808	201 01.20-03.30	M	W	Faner	2522	Christensen			
	01.20-02.20		F	Faner	2522				

424	NAT RESOURCES PLAN			04.0	Cr ¹				
	Prereq: 304 or consent								
6809	201 01.20-04.40	T	Th	Faner	2533	Baumann D			

487A	HONORS TUTORIAL			01.0	Cr ¹				
	Prereq: Consent of dept								
6810	700 To be arranged								

487B	HONORS READINGS			02.0	Cr ¹				
	Prereq: Consent of dept								
6811	700 To be arranged								

487C	HONORS SUPERV RES			03.0	Cr ¹				
	Prereq: 487a or 487b and consent of department								
6812	700 To be arranged								

490	READINGS IN GEOG			02.0 to 04.0	Cr ¹				
	Prereq: Geog major,adv standing								
6813	700 To be arranged								

527	SEM-URBAN,REG PLAN			02.0	Cr				
	Prereq: Graduate standing								
6814	201 01.20-04.40	T	Faner	4523	Christensen				

570	PLANNING INTERNSHIP			02.0 to 04.0	Cr				
	Prereq: 470a or consent of department								
6815	201 To be arranged								

591	INDEPENDENT STUDIES			02.0 to 04.0	Cr				
	Prereq: Graduate standing								
6816	700 To be arranged								

593A	RESEARCH-PHYS GEOG			02.0 to 06.0	Cr				
	Prereq: 520								
6817	700 To be arranged								

593B	RESEARCH-ECON GEOG			02.0 to 06.0	Cr				
	Prereq: 521								
6818	700 To be arranged								

593C	RESEARCH-REG GEOG			02.0 to 06.0	Cr				
	Prereq: Graduate standing								
6819	700 To be arranged								

593D	RES-CULTURAL GEOG			02.0 to 06.0	Cr				
	Prereq: 524								
6820	700 To be arranged								

599	THESIS			02.0 to 06.0	Cr				
	Prereq: Graduate standing								
6821	700 To be arranged								

600	DISSERTATION			01.0 to 16.0	Cr				
	Prereq: Graduate standing								
6822	700 To be arranged								

220 PHYSICAL GEOLOGY					03.0 Cr ¹
Prereq: High school or college chem					
6826	201	08.40-09.40	M W F	Park	111
		07.30-09.00	T Th	Park	112
418 LOW TEMP GEOCHEM					03.0 Cr ¹
Prereq: 310, CHEM 222 or equivalent					
6827	201	09.50-12.00	T Th	Park	103
		12.10-02.20	T	Park	103
428 PALEOEC & ENV-DEPOS					03.0 Cr ¹
Prereq: 425,325 or concurrent enroll					
6828	201	11.00-12.00	M W F	Park	107
		12.10-04.20	Th	Park	107
440 ADV TOPICS-GEOL SCI					01.0 to 04.0 Cr ¹
Prereq: Advanced standing and consent of instructor					
6829	700	To be arranged			
449 INTERNSHIP					01.0 to 02.0 Cr ¹
Prereq: Advanced standing					
6830	700	To be arranged			
599 THESIS					01.0 to 06.0 Cr
6831	700	To be arranged			

German (GER)

126A ELEMENTARY GERMAN						04.0 Cr ¹	
6832	301	08.40-10.40	MTWThF	Pull	208		
		01.20-02.20	MT ThF	Faner	2083		
Above section meets 6/13-7/8							
126B ELEMENTARY GERMAN						04.0 Cr ¹	
Prereq: 126a							
6833	301	08.40-10.40	MTWThF	Pull	208		
		01.20-02.20	MT ThF	Faner	2083		
Above section meets 7/11-8/3							
201A INTERMEDIATE GERMAN						04.0 Cr ¹	
Prereq: 126b or equivalent							
6834	301	08.40-10.40	MTWThF	Faner	2079	French	
		01.20-02.20	MT ThF	Faner	2079		
Above section meets 6/13-7/8							
201B INTERMEDIATE GERMAN						04.0 Cr ¹	
Prereq: 201a							
6835	301	08.40-10.40	MTWThF	Faner	2079	Keller	
		01.20-02.20	MT ThF	Faner	2079		
Above section meets 7/11-8/3							
413 HIST OF GER LANG						03.0 Cr ¹	
6836	201	07.30-08.30	MTWThF	Faner	2079	Keller T	
490 INDEP STUDY IN GER						01.0 to 03.0 Cr	
Prereq: Sr or grad standing & approval of supervising instr							
6837	700	To be arranged					
502 SEM-GERMANIC LING						02.0 Cr	
Prereq: 413 or consent of instr							
6838	201	To be arranged				Keller T	
560 GER LIT-TURN 20TH C						03.0 Cr	
6839	201	11.00-12.00	MTWThF	Pull	208	Timpe E	
599 THESIS						01.0 to 06.0 Cr	
6840	700	To be arranged					

Guidance and Educational Psychology (GUID)

412 HUM BEHAV-MENT HLTH					03.0 Cr
Prereq: Junior & senior standing					
6841	201	08.40-09.40	MTWThF	Wham	321 Yates J
6842	202	11.00-12.00	MTWThF	Wham	319 Yates J
442 INTRO-COUN, GUID SYS					03.0 Cr
6843	201	08.40-09.40	MTWThF	Wham	328 Deweese
502 BASIC STATISTICS					03.0 Cr
6844	201	07.30-08.30	MTWThF	Wham	205 Woehlke
6845	202	11.00-12.00	MTWThF	Wham	205 Leitner
506 INFERENTIAL STATIST					04.0 Cr
6846	201	09.50-10.50	MTWThF	Wham	203 Mouw
		11.00-12.00	T Th	Wham	201 Mouw
6847	202	11.00-12.00	MTWThF	Wham	203 Woehlke
		12.10-01.10	T Th	Wham	201 Woehlke

507 MULTIPLE REGRESSION					04.0 Cr
Prereq: 506					
6848	201	08.40-09.40	MTWThF	Wham	317 Pohlmann
		09.50-10.50	T Th	Wham	317 Pohlmann
511 INSTRUCTIONAL PSYC					03.0 Cr
Prereq: None. PSYC 407 or equivalent recommended					
6849	201	08.40-09.40	MTWThF	Wham	203 Snowman
521 ANALY CLSRM BEHAV					03.0 Cr
6850	201	08.40-09.40	MTWThF	Faner	2073 Bardo H
530 STANDARIZED TESTNG					04.0 Cr
6851	201	08.40-10.50	M W F	Wham	301A Bradley
To be arranged					
531 PRIN OF MEASUREMENT					03.0 Cr
6852	201	08.40-09.40	MTWThF	Allyn	103 Leitner
532 INDIV INTELL THEORY					03.0 Cr
6853	201	03.40-04.40	M W F	Wham	312 Snowman J
To be arranged					
537 COUNSELING CHILDREN					04.0 Cr
6854	201	05.00-09.00	M	Wham	301B Altekruise
		07.30-09.30 pm	T Th	Wham	301B
543 GRP THEORY & PRAC					03.0 Cr
6855	201	01.20-03.00	M W F	Wham	205 Wickersham B
To be arranged					
Additional hours required					
547 IMPLEM GUID SERVICE					03.0 Cr
Prereq: Sch guid work, adv stand in couns educ or equivalent					
6856	201	11.00-12.00	MTWThF	Faner	2073 Deweese
562A HUM DEV, ED-CHLDHOOD					03.0 Cr
6857	201	09.50-10.50	MTWThF	Wham	301B Deichmann
567 TOPICAL SEM-ED PSYC					02.0 to 06.0 Cr
Prereq: Consent of instr					
6858	201	06.00-09.30 pm	T	Wham	329 Kelly
568 TOP SEM-COUNS, GUID					01.0 to 06.0 Cr
6859	201	To be arranged			Altekruise
6860	202	02.30-04.30	M W	Wham	212 Bradley
580 DOC SEM-MEAS & STAT					02.0 to 06.0 Cr
Prereq: 507					
6861	201	08.40-09.40	MTWThF	Faner	3113 Mouw
6862	202	01.20-02.50	M W	Allyn	103 Pohlmann
592 INDEP STU & INVEST					01.0 to 06.0 Cr
Prereq: Consent of dept					
6863	700	To be arranged			
593 INDIVIDUAL RESEARCH					01.0 to 04.0 Cr
Prereq: Consent of dept					
6864	700	To be arranged			
594 ADVANCED PRACTICUM					01.0 to 06.0 Cr
6865	201	To be arranged			Meek
6866	202	01.20-03.40	W F	Faner	2406 Wickersham B
599 THESIS					01.0 to 06.0 Cr
Prereq: Consent of dept					
6867	700	To be arranged			
600 DISSERTATION					01.0 to 16.0 Cr
6868	700	To be arranged			

Health Education (HED)

301 ADV CONCEPTS-HEALTH					03.0 Cr
6882	201	07.30-08.30	MTWThF	Lingle	121 Vaughan
302S DRIV & TRAF SAFE ED					03.0 Cr
Prereq: Valid drivers license					
6883	201	08.40-09.40	MTWThF	L-ApS	136 Depue L
305 PRINC & FOUND H ED					03.0 Cr
6884	201	01.20-02.20	MTWThF	Tech A	120 Henderson A
312 EMOTIONAL HEALTH					03.0 Cr
6885	201	12.10-01.10	MTWThF	Lingle	123 Casey
313S INTRO SAFETY EDUC					03.0 Cr
6886	201	09.40-10.40	MTWThF	L-ApS	136 Depue
334 STANDARD FIRST AID					02.0 to 03.0 Cr
6887	201	07.30-08.30	MTWThF	Lingle	119 Bailey
6888	202	08.40-09.40	MTWThF	Lingle	119 Dodd
6889	203	09.50-10.50	MTWThF	Lingle	119

¹Elective Pass/Fail ²Mandatory Pass/Fail

590 INDIVIDUAL READINGS

Prereq: Consent of instructor

01.0 to 06.0 Cr

6941 700 To be arranged

591 INDIVIDUAL STUDY

Prereq: Consent of instructor

01.0 to 06.0 Cr

6942 700 To be arranged

592 SPEC PROB (INDIVID)

Prereq: Consent of instructor

01.0 to 06.0 Cr

6943 700 To be arranged

595 INTERNSHIP IN HIED

Prereq: Consent of instructor

01.0 to 06.0 Cr

6944 700 To be arranged

599 THESIS

01.0 to 06.0 Cr

6945 700 To be arranged

600 DISSERTATION

01.0 to 16.0 Cr

6946 700 To be arranged

History (HIST)**205 HIST-WEST CIVILIZAT**03.0 Cr¹

6950 201 12.10-01.10 MTWThF Faner 1030 Detwiler D

320 EARLY MODERN EUROPE04.0 Cr¹

6951 201 01.20-04.50 M W Wham 326 Dotson J

330B ENG HIST SINCE 168803.0 Cr¹6952 201 01.20-02.20 MTWTh H Ec 102 Vyverberg
02.30-03.30 T H Ec 102**364 GREAT DEPRESSION US**03.0 Cr¹

6953 201 08.40-09.40 MTWThF Faner 1030 Conrad

367 HISTORY-ILLINOIS

03.0 Cr

6954 201 12.10-01.10 MTWThF Faner 1224 Allen H

370A COLONIAL LATIN AMER03.0 Cr¹

6955 201 11.00-12.00 MTWThF Faner 1030 Werlich

422A INTEL EUR 1600-181503.0 Cr¹

6956 201 08.40-12.00 M W Faner 1224 Vyverberg H

437B REVOLUTIONARY RUSS03.0 Cr¹

6957 201 08.40-12.00 T Th Faner 1224 Mcfarlin

453B 20TH C US-1921-1945

03.0 Cr

6958 201 09.50-10.50 MTWThF Faner 1030 Allen H

466B AM WEST SINCE 1850

03.0 Cr

6959 201 02.30-03.30 MTWThF Faner 1222

490 SPEC READINGS-HIST

01.0 to 04.0 Cr

Prereq: Registration by special permission only

6960 700 To be arranged

492 METH-HISTORICAL RES

03.0 Cr

6961 201 02.30-04.50 T Th Pull 39 Detwiler D

555 SEM-AMERICAN HIST

04.0 Cr

6962 201 01.20-04.50 T Th Faner 2205 Murphy J

590 READINGS IN HISTORY

01.0 to 03.0 Cr

Prereq: Registration by special permission only

6963 700 To be arranged

591 INDEP INVESTIGATION

02.0 to 05.0 Cr

Prereq: Doctoral standing & consent of graduate advisor

6964 700 To be arranged

599 THESIS

01.0 to 06.0 Cr

6965 700 To be arranged

600 DISSERTATION

01.0 to 16.0 Cr

6966 700 To be arranged

Home Economics Education (HEED)**111 HOME ECON CAREERS**

01.0 Cr

6967 201 09.50-10.50 T Th H Ec 133 Heisler

313 SPECIAL PROBLEMS

01.0 to 03.0 Cr

6968 700 To be arranged
Bubnas &
Heisler**371 FIELD EXPERIENCE**

04.0 Cr

Prereq: 370

6969 201 To be arranged
Bubnas P**395 OCCUPATIONAL INTERN**

02.0 to 24.0 Cr

6970 700 To be arranged

399 HOME EC-MEN(&WOMEN)

03.0 Cr

6971 201 12.10-01.10 MTWThF Pull I 14 Heisler A

407 WORKSHOP

01.0 to 04.0 Cr

6972 401 08.40-12.00 MTWThF H Ec 133 Keenan D

Above sect meets 7/11-22. Top: Clasrm Disc & Man-2 cr

6973 402 08.40-12.00 MTWThF H Ec 133 Keenan D

Above sec meets 7/25-8/5. Topic: Current Trends. 2 cr

6974 403 08.40-10.50 MTWThF H Ec 133 Bubnas P

Topic: Value Clarification. Meets 6/27-7/8 for 1 cr.

6975 404 01.10-03.10 MTWThF H Ec 133 Carter R

Above sect meets 7/11-15. Top: Work-spec Learners-1 cr

6976 501 07.30-04.30 ThF H Ec 133 Carter R

Above sect meets 6/9&10. Top: Teach Boys in H Ec-1 cr

414 H EC-ELEM TEACHERS

02.0 Cr

6977 301 01.20-02.50 MTWThF H Ec 120

Above section meets June 13- July 8

426 INDIVID INSTR-H EC

02.0 Cr

Prereq: Student teaching or cons instr

6978 201 03.00-04.30 T Th H Ec 120 Carter R

Human Resources (HUMR)**258 WORK EXPERIENCE**

01.0 to 30.0 Cr

6979 700 To be arranged

387 HUMR-SPECIAL PROBS

01.0 to 06.0 Cr

Prereq: Junior standing, GPA of 3.0 overall

6980 700 To be arranged

Industrial Technology (IT)**105 TECHNICAL DRAWING**02.0 Cr¹

6981 201 07.30-09.40 T Th Tech A 207

308 FUND-INDUST PROCESS

04.0 Cr

6982 201 11.00-12.00 MTWThF Tech D 130

To be arranged

Two additional hours per week

319 INDUST INTERNSHIP

02.0 to 30.0 Cr

Prereq: Consent of instructor

6983 700 To be arranged

341 MAINTENANCE

03.0 Cr

6984 201 12.10-01.10 MTWThF Tech D 30

375 PROD & INVENT CONTR

03.0 Cr

6985 201 09.50-10.50 MTWThF Tech A 310

466 OCC SAFE,HLTH STAND

03.0 Cr

6986 201 01.20-02.20 MTWThF Tech A 308

492 SPEC PROB IN INDUST

01.0 to 06.0 Cr

Prereq: Consent of instructor

6987 700 To be arranged

Interior Design (ID)**131 DES,HOME FURN & INT**04.0 Cr¹

6988 201 07.30-08.30 MTWThF H Ec 302

08.40-09.40 T Th H Ec 302

332A CONST MTH & MAT-RES

03.0 Cr

Prereq: 232 or consent of chairman

6989 201 01.20-04.40 MTWTh H Ec 304

350 BASIC MATERIALS

03.0 Cr

Prereq: Concurrent enrollment in 332 or consent of chairman

6990 201 08.40-09.40 MTWThF H Ec 120

371 PROFESS INTERNSHIP04.0 Cr²

Prereq: ID maj within 4 semesters of grad & cons of chairmn

6991 201 To be arranged

390 DES PRESENT & DELIN

03.0 Cr

Prereq: 231 or consent of chairman

6992 201 07.30-10.50 MT ThF H Ec 122

391A INTER ID-RESIDENTAL

04.0 Cr

Prereq: 390, ARCH 124 concurrently

6993 201 07.30-12.00 MTWThF H Ec 304

391C INTER ID-PUBLIC BLD

04.0 Cr

Prereq: 391a & ARCH 214 concurrently or consent of chairman

6994 201 07.30-12.00 MTWThF H Ec 304A

481 READINGS

01.0 to 04.0 Cr

Prereq: 28 hrs in interior design or consent of chairman

6995 201 To be arranged
Lougeay P¹Elective Pass/Fail ²Mandatory Pass/Fail

492	SPECIAL PROBLEMS	01.0 to 05.0 Cr
Prereq: 18 hrs in interior design or consent of chairman		
6996	201 To be arranged	Lougeay P

Journalism (JRNL)

300	MASS MEDIA MOD SOC	03.0 Cr
6999	201 03.40-04.40 MTWThF	Lawson 231
301	HIST OF JOURNALISM	03.0 Cr
7000	201 12.10-01.10 MTWThF	Comm 1213
310	WRITING-MASS MEDIA	03.0 Cr
Prereq: Typing speed of 30 words per minute		
7001	201 01.20-02.20 M W F	Lawson 131
	07.30-09.30 T Th	Comm 1248
311	RPT & NEWS WRITING	03.0 Cr
Prereq: 310		
7002	201 08.40-09.40 MT Th	Lawson 221
To be arranged		
4 hours lab		
312	EDITING AND MAKEUP	03.0 Cr
Prereq: 311		
7003	201 09.50-10.50 M W F	Comm 2012
To be arranged		
4 hours lab		
315	GRAPHIC COMM	03.0 Cr
7004	201 01.20-03.00 M W F	Comm 1250
340	PUBLICITY METHODS	02.0 Cr
7005	201 11.00-12.00 M W F	Comm 1213
Above section closed to JRNL majors		
341	PUBLIC RELATIONS	03.0 Cr
7006	201 11.00-12.00 MTWThF	Comm 1018
360	MAGAZINE PROD & DES	03.0 Cr
7007	201 09.50-10.50 MTWThF	Comm 1250
370	PRIN OF ADVERTISING	03.0 Cr
7008	201 12.10-01.10 MTWThF	Lawson 101
390	CRIT & PERSUAS WRIT	03.0 Cr
Prereq: 311		
7009	201 08.40-09.40 MTWThF	Comm 1213
391	FEATURE WRITING	03.0 Cr
Prereq: 311		
7010	201 01.20-02.20 MTWThF	Comm 1213
442	LAW OF JOURNALISM	03.0 Cr
Prereq: Sr standing		
7011	201 11.00-12.00 MTWThF	Comm 1244
450	MASS MEDIA MGT	03.0 Cr
Prereq: Consent of instr		
7012	201 09.50-10.50 MTWThF	Comm 1244
479	SOCIAL ISSUES & ADV	02.0 Cr
Prereq: Sr standing		
7013	201 02.30-03.30 M W F	Comm 1018
490	READINGS	01.0 to 02.0 Cr
Prereq: Written consent of instr and area head		
7014	700 To be arranged	
494	PRACTICUM	01.0 to 03.0 Cr
Prereq: Consent of instructor and area head		
7015	700 To be arranged	
495	PROSEMINAR	01.0 to 06.0 Cr
Prereq: Sr standing		
7016	201 02.30-05.00 T Th	Comm 1250
Topic- New Journalism		
510	LITERATURE OF JRNL	02.0 Cr
7017	201 01.20-04.20 W	Comm 1244
550	TOPICAL SEMINAR	01.0 to 04.0 Cr
7018	201 02.30-05.00 T Th	Comm 1244
Topic- Mass Media as a Social Institution		
7019	202 06.00-10.00 pm T	Comm 1244
Topic- Content Analysis		
7020	700 To be arranged	
592	INDIVIDUAL RESEARCH	01.0 to 02.0 Cr
7021	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
7022	700 To be arranged	

600	DISSERTATION	01.0 to 32.0 Cr
7023	700 To be arranged	

Latin (LATN)

288A	LATIN AS A RES TOOL	03.0 Cr
7024	201 11.00-12.00 MTWThF	Faner 2061 Speck

Liberal Arts College (LAC)

258	WORK EXPERIENCE	01.0 to 30.0 Cr
7025	700 To be arranged	
Above sect- Prior to registration, contact dept chrmn		
300	INDIV INTERDIS READ	01.0 to 03.0 Cr ¹
Prereq: Advance approval by the dean		
7026	700 To be arranged	
Above sect- Prior to registration, contact dept chrmn		
301	INDIV INTERDIS RES	01.0 to 03.0 Cr ¹
Prereq: Advance approval by the dean		
7027	700 To be arranged	
Above sect- Prior to registration, contact dept chrmn		
302	IND INTERDIS FLD ST	01.0 to 03.0 Cr
Prereq: Advance approval by the dean		
7028	700 To be arranged	
Above sect- Prior to registration, contact dept chrmn		
303	INTERDISCIPLIN STU	01.0 to 03.0 Cr ¹
7029	700 To be arranged	
Above sect- Prior to registration, contact dept chrmn		

Linguistics (LING)

401	GENERAL LINGUISTICS	04.0 Cr ¹
7031	201 01.20-02.20 MTWThF	Faner 1030 Nguyen
	02.30-03.30 T Th	Faner 1030
402A	PHONETICS	03.0 Cr ¹
7032	201 03.40-04.40 MTWThF	Faner 3512 Redden
415	SOCIOLINGUISTICS	03.0 Cr ¹
Prereq: One previous course in LING or consent of dept		
7033	201 08.40-09.40 MTWThF	Faner 1032 Gilbert
497	READINGS IN LING	01.0 to 08.0 Cr
Prereq: Consent of dept and undergrad status		
7034	700 To be arranged	
540	STUDIES IN LING	03.0 Cr
Prereq: One previous course in LING or consent of dept		
7035	201 11.00-01.00 T Th	Faner 2373 Parish
	11.00-12.00 F	Faner 2373
571	LANG LAB IN EFL/ESL	02.0 Cr
Prereq: 570 or consent of department		
7036	401 09.30-11.30 MTWThF	Faner 1005 Parish
Above section meets May 22 - June 10		
580	SEM SP PROB EFL/ESL	03.0 Cr
Prereq: 570		
7037	201 09.50-10.50 MTWThF	Faner 2367 Redden
7038	202 02.30-03.30 MTWThF	Faner 2367 Nguyen
597	READINGS IN LING	01.0 to 08.0 Cr
Prereq: Consent of department		
7039	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
Prereq: Consent of department		
7040	700 To be arranged	

Marketing (MKTG)

304	MARKETING MANAGEMNT	03.0 Cr
Prereq: One course in ACCT & one crse in Economics		
7041	301 09.50-12.00 MTWThF	Pull 227 Moore J
Above section meets 6/13-7/8		
305	BEHAV&SOC ASPC-MKTG	03.0 Cr
7042	301 09.50-12.00 MTWThF	Pull 227 Fugate
Above section meets 7/11-8/3		
438	SALES MANAGEMENT	03.0 Cr
Prereq: 304		
7043	201 08.40-09.40 MTWThF	Wham 201 Fugate
493	MARKETING POLICIES	03.0 Cr
Prereq: 329, 363 and 390; not more than one to be taken concur		
7044	201 11.00-12.00 MTWThF	Pull 211 Eckrich
499	MARKETING INSIGHTS	01.0 to 03.0 Cr
Prereq: Approval of dept chairman in semester prior to enr		
7045	700 To be arranged	

110A COL ALGEBRA & TRIG			03.0 Cr ¹
Prereq: GSD 107 or 1 1/2 yrs of high school algebra or equiv			
7057	201	07.30-08.30	MTWThF Tech A 322
7058	202	07.30-08.30	MTWThF Nkrs A 156
110B COL ALGEBRA & TRIG			02.0 Cr ¹
Prereq: 110a or two or more yrs high sch algebra & no trig			
7059	201	11.00-12.00	M W F Tech A 420
7060	202	11.00-12.00	M W F Ag 116
111 COL ALGEBRA & TRIG			05.0 Cr ¹
Prereq: GSD 107 or 1 1/2 yrs high schl algebra, or equiv			
7061	201	08.40-09.40	MTWThF Tech A 422
		09.50-10.50	M W F Tech A 422
7062	202	08.40-09.40	MTWThF Tech A 322
		09.50-10.50	M W F Tech A 320
117 FIN MATH & CALCULUS			05.0 Cr
Prereq: 116			
7063	201	01.20-02.20	MTWThF Tech A 320
		02.30-03.30	M W F Tech A 320
139 FINITE MATH			03.0 Cr
Prereq: GSD 107 or 1 1/2 years of high school algebra			
7064	201	09.50-10.50	MTWThF Faner 1136
7065	202	09.50-10.50	MTWThF Tech A 410
140 SHORT CRSE CALCULUS			04.0 Cr
Prereq: GSD 107 or 1 1/2 years of high school algebra			
7066	201	11.00-12.00	MTWThF Nkrs C 116
		12.10-01.10	T Th Nkrs C 116
7067	202	11.00-12.00	MTWThF Nkrs C 118
		12.10-01.10	T Th Nkrs C 118
150 CALCULUS I			04.0 Cr ¹
Prereq: 111 or equivalent			
7068	201	07.30-08.30	MTWThF Nkrs C 218
		08.40-09.40	T Th Nkrs C 218
7069	202	12.10-01.10	MTWThF Nkrs C 218
		11.00-12.00	T Th Nkrs C 218
221 INTRO LINEAR ALGEBR			03.0 Cr ¹
Prereq: 150			
7070	201	08.40-09.40	MTWThF Tech A 208
7071	202	08.40-09.40	MTWThF Tech A 310
250 CALCULUS II			04.0 Cr ¹
Prereq: 150			
7072	201	01.20-02.20	MTWThF Nkrs C 118
		02.30-03.30	T Th Nkrs C 118
7073	202	01.20-02.20	MTWThF Tech A 422
		02.30-03.30	T Th Tech A 422
251 CALCULUS III			03.0 Cr ¹
Prereq: 250			
7074	201	07.30-08.30	MTWThF Nkrs C 118
258 WORK EXPERIENCE			01.0 to 12.0 Cr ²
Prereq: Consent of Mathematics department			
7075	700	To be arranged	
282 INTRO TO STATISTICS			03.0 Cr ¹
Prereq: 3 semester hrs of college math beyond G.S. math			
7076	201	09.50-10.50	MTWThF Tech A 408
305 ORD DIFF EQUA I			03.0 Cr ¹
Prereq: 250			
7077	201	07.30-08.30	MTWThF Nkrs C 116
308 MATH FOR EL TCH I			03.0 Cr
Prereq: 3 hours of college mathematics			
7078	201	09.50-10.50	MTWThF Nkrs C 116
395 READINGS IN MATH			01.0 to 06.0 Cr
Prereq: 4.0 GPA in MATH and consent of chairman			
7079	700	To be arranged	
411 MATH TOPICS FOR TCH			01.0 to 03.0 Cr ¹
7080	401	09.15-12.00	M W F Pull 35
		09.15-12.00	T Th Wham 301A
Above section meets 6/13-6/24			
417 APPLIED MATRIX THEO			03.0 Cr ¹
Prereq: 139 or 221 or consent of dept			
7081	201	08.40-09.40	MTWThF Lingle 123
449 COMBIN & GRAPH THEO			03.0 Cr
Prereq: 301 or consent of mathematics department			
7082	201	01.20-02.20	MTWThF Faner 2061
Above section crosslisted with CS 449			

¹Elective Pass/Fail

²Mandatory Pass/Fail

471 INTRO-OPTIMIZ TECH			03.0 Cr
Prereq: 221, 250, Computer Science 202			
7083	201	09.50-10.50	MTWThF Faner 2512
Above section crosslisted with CS 471			
483 INTRO TO MATH STAT			03.0 Cr ¹
Prereq: 250			
7084	201	01.20-02.20	MTWThF Nkrs A 156
495 SPECIAL TOPICS-MATH			01.0 to 06.0 Cr ¹
Prereq: Consent of chairman & instr			
7085	700	To be arranged	
528 FORM LANG, AUTOMATA			03.0 Cr
Prereq: 451			
7086	201	11.00-12.00	MTWThF Tech A 322
Above section crosslisted with CS 553			
550C SEMINAR-ANALYSIS			01.0 to 03.0 Cr
Prereq: Consent of instructor			
7087	201	02.30-03.30	M W F Nkrs A 156
550H SEMINAR-APPLI MATH			01.0 to 03.0 Cr
Prereq: Consent of instructor			
7088	201	01.20-02.50	T Th Nkrs A 278
595A SPEC PROJ-ALGEBRA			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7089	700	To be arranged	
595B SPEC PROJ-GEOMETRY			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7090	700	To be arranged	
595C SPEC PROJ-ANALYSIS			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7091	700	To be arranged	
595D SPEC PROJ-PROB,STAT			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7092	700	To be arranged	
595E SPEC PROJ-MATH ED			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7093	700	To be arranged	
595F LOGIC & FOUNDATIONS			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7094	700	To be arranged	
595G SPEC PROJ-TOPOLOGY			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7095	700	To be arranged	
595H SPEC PROJ-APPL MATH			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7096	700	To be arranged	
595I SPEC PROJ-DIF EQUAT			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7097	700	To be arranged	
595J SPEC PROJ-NUM THEO			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7098	700	To be arranged	
599 THESIS			01.0 to 06.0 Cr
7099	700	To be arranged	
600 DISSERTATION			01.0 to 30.0 Cr
7100	700	To be arranged	

Medical Education Preparation (MEDP)			
400A MEDP SEM-ORIENTAT			01.0 Cr
Prereq: Restricted to MEDPREP students			
7101	201	02.30-04.00	T Th Whlr 107 Rainey M
400B MEDP SEM-MED SEM			01.0 Cr
Prereq: 400a			
7102	201	To be arranged	
401A BASIC TUT-LEARN SKL			01.0 to 02.0 Cr ¹
Prereq: Restricted to MEDPREP students			
7103	201	To be arranged	
401B BASIC TUT-SCI PROC			01.0 to 02.0 Cr ¹
Prereq: Restricted to MEDPREP students			
7104	201	To be arranged	

401C BASIC TUT-QUAN SKIL		01.0 to 02.0 Cr ¹
Prereq: Restricted to MEDPREP students		
7105	201 To be arranged	
401D TUTOR-PERCEP MOT SK		01.0 to 02.0 Cr ¹
Prereq: Restricted to MEDPREP students		
7106	201 To be arranged	
401E BASIC TUT-INTERPERS		01.0 to 02.0 Cr ¹
Prereq: Restricted to MEDPREP students		
7107	201 To be arranged	
401F BASIC TUT-READ SKIL		01.0 to 02.0 Cr ¹
Prereq: Restricted to MEDPREP students		
7108	201 To be arranged	
401G BASIC TUT-WRIT COMM		01.0 to 02.0 Cr ¹
Prereq: Restricted to MEDPREP students		
7109	201 To be arranged	
402A SP PROB-MCAAP/DAT		01.0 Cr
Prereq: Restricted to MEDPREP students		
7110	201 To be arranged	Pohlmann M
402B SP PROB-JRNL CLUB		01.0 Cr
Prereq: Restricted to MEDPREP students		
7111	201 To be arranged	Pohlmann
402C SP PROB-CLINICAL EX		01.0 Cr
Prereq: Restricted to MEDPREP students		
7112	700 To be arranged	
402D SP PROB-INDEP RES		01.0 Cr
Prereq: Restricted to MEDPREP students		
7113	700 To be arranged	
402E SP PROB-INDEP READ		01.0 Cr
Prereq: Restricted to MEDPREP students		
7114	700 To be arranged	
402F SPECIAL PROBLEMS		01.0 Cr
Prereq: Restricted to MEDPREP students		
7115	700 To be arranged	
403A MEDP BIOL TUT-GENET		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students or consent of instr		
7116	201 To be arranged	George R
403B MEDP BIOL TUT-ANATO		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students or consent of instr		
7117	201 To be arranged	Wilcox R
403C MEDP BIOL TUT-PHSL		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students or consent of instr		
7118	201 To be arranged	Bemiller P
403D MEDP BIO TUT-EMBRYO		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students or consent of instr		
7119	201 To be arranged	Bemiller P
403E MEDP BIOL TUT-MICRO		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students or consent of instr		
7120	201 To be arranged	
403F MEDP BIOL TUT-ZOOL		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students or consent of instr		
7121	201 To be arranged	
403G MEDP BIO TUT-SPEC		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students or consent of instr		
7122	201 To be arranged	Bemiller P
404A MEDP CHEM TUT-INORG		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7123	201 To be arranged	Scism A
404B MEDP CHEM TUT-INORG		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7124	201 To be arranged	Scism A
404C MEDP CHEM TUT-ORGAN		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7125	201 To be arranged	Bynum J
404D MEDP CHEM TUT-ORGAN		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7126	201 To be arranged	Bynum J
404E MEDP CHEM TUT-BIOCH		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7127	201 To be arranged	Bynum J
404F MEDP CHEM TUTORIAL		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7128	201 To be arranged	Scism A
405A MEDP PHYS TUTORIAL		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7129	201 To be arranged	Venable W
405B MEDP PHYS TUTORIAL		01.0 to 02.0 Cr
Prereq: Restricted to MEDP students		
7130	201 To be arranged	Venable
Microbiology (MICR)		
201 ELEMENTARY MICRO		04.0 Cr
Prereq: For students of dental hygiene		
7131	201 09.50-11.20 T Th Lawson 221	
	02.30-04.00 T Th Lawson 221	
	07.30-09.30 T Th LS II 6	
	12.30-02.30 T Th LS II 6	
Above section restricted to dental hygiene students		
7132	202 09.50-11.20 T Th Lawson 221	
	02.30-04.00 T Th Lawson 221	
	07.30-09.30 T Th LS II 113	
	12.30-02.30 T Th LS II 113	
Above section restricted to dental hygiene students		
7133	203 09.50-11.20 T Th Lawson 221	
	02.30-04.00 T Th Lawson 221	
	07.30-09.30 T Th LS II 119	
	12.30-02.30 T Th LS II 119	
Above section restricted to dental hygiene students		
302 GENERAL MICRO		03.0 Cr ¹
Prereq: 301		
7134	201 01.20-02.20 M W F LS II 450	
	07.30-09.40 M W LS I 6	
	08.40-09.40 F LS I 6	
7135	202 01.20-02.20 M W F LS II 450	
	09.50-12.00 M W LS I 6	
	09.50-10.50 F LS I 6	
490 UGRAD RES PARTICIP		01.0 to 03.0 Cr
Prereq: 3.0 GPA in MICR & consent of instructor		
7136	700 To be arranged	
504 METH-MICRO RESEARCH		03.0 Cr
7137	700 To be arranged	
505 SPEC TOPICS IN MICR		01.0 Cr
Prereq: Consent of instr		
7138	700 To be arranged	
511 RESEARCH		01.0 to 07.0 Cr
Prereq: Consent of instructor		
7139	700 To be arranged	
528 READINGS IN MICR		01.0 to 03.0 Cr
Prereq: Consent of instructor		
7140	700 To be arranged	
599 THESIS		01.0 to 03.0 Cr
Prereq: Consent of instructor		
7141	700 To be arranged	
600 DISSERTATION		01.0 to 12.0 Cr
Prereq: Consent of instructor		
7142	700 To be arranged	
Mining Engineering (MNGE)		
420 COAL PREP/WASTETRE		02.0 Cr
Prereq: Grad or senior standing in engineering disciplines		
7143	201 08.40-12.00 S Tech B 42	
521 MATR HAN/MINE DRAIN		02.0 Cr
Prereq: 410 and Engineering 313		
7144	201 01.20-04.40 S Tech B 42	
550 INTERNSHIP		01.0 to 03.0 Cr
Prereq: Graduate standing		
7145	201 To be arranged	
592 SPECIAL INVESTIGAT		01.0 to 05.0 Cr
7146	201 To be arranged	
599 THESIS		01.0 to 06.0 Cr
7147	201 To be arranged	
Molecular Science (MOLS)		
597 SELECT TOPICS-MOLS		02.0 to 30.0 Cr
Prereq: Admis to mol sci doctoral prog & cons of instr		
7148	201 To be arranged	

Prereq: Admis to mol sci doctoral prog & cons of instr

7149 201 To be arranged Miller D

600 DISSERTATION 01.0 to 16.0 Cr

Prereq: Admission to advanced study in molecular science

7150 201 To be arranged

Mortuary Science and Funeral Service (MS)

375A FUNERAL SERV INTERN 05.0 Cr

Prereq: All MS curriculum req & concurrent enrol in 375b

7151 201 To be arranged

375B FUNERAL SERV INTERN 05.0 Cr

Prereq: All MS curriculum req & concurrent enrol in 375a

7152 201 To be arranged

380 FUNERAL SERVICE SEM 02.0 Cr²

Prereq: Concurrent enrollment in 375

7153 201 To be arranged

7154 202 To be arranged

Music (MUS)

036A GUITAR CL-LEVEL 1 01.0 Cr

Prereq: Maj or min in MUS, ELED, early child, or instr cons

7161 201 09.50-10.50 T Th 0555 7 Bliven

NOTE- Students enrolling in MUS 036a or in the MUS 040,240,340,440, or 540 series must present a restricted class permit slip from the music advisor when registering. For the MUS 040,140,240,340,440, or 540 series, musicmajors and minors enroll for 2 semester hours on their principal instrument,taking one half-hour private lesson and studio class. Non-music majors or minors, and those music majors taking a second instrument, enroll for 1 semester hour,taking one private or classlesson per week.

036B GUITAR CL-LEVEL 2 01.0 Cr

Prereq: Maj or min in MUS, ELED, early child, or instr cons

7162 201 11.00-12.00 T Th 0555 7 Bliven

040A APPLIED MUSIC-FLUTE 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7163 201 To be arranged Fligel

040B APPLIED MUSIC-OBOE 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7164 201 To be arranged Fligel L

040C APPLIED MUSIC-CLAR 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7165 201 To be arranged Fligel

040D APPLIED MUS-BASSOON 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7166 201 To be arranged Fligel

040E APPLIED MUSIC-SAX 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7167 201 To be arranged Fligel

040F APPLIED MUSIC-HORN 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7168 201 To be arranged Koenigstein

040G APPLIED MUS-TRUMPET 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7169 201 To be arranged

040H APPLI MUS-TROMBONE 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7170 201 To be arranged

040I APPLI MUS-BARITONE 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7171 201 To be arranged

040J APPLIED MUSIC-TUBA 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7172 201 To be arranged

040K APPLIED MUS-PERCUSS 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7173 201 To be arranged Hanes M

040L APPLIED MUS-VIOLIN 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7174 201 To be arranged

040M APPLIED MUSIC-VIOLA 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7175 201 To be arranged

040N APPLIED MUSIC-CELLO 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7176 201 To be arranged Bakker

040O APP MUS-STRING BASS 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7177 201 To be arranged Valk

040P APPLIED MUSIC-VOICE 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7178 201 To be arranged Kageff

7179 202 To be arranged Wallace M

040Q APPLIED MUSIC-PIANO 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7180 201 To be arranged

7181 202 To be arranged

040R APPLIED MUSIC-ORGAN 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7182 201 To be arranged Bateman M

040T APPLIED MUS-GUITAR 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7183 201 To be arranged Bliven

040U APPLI MUS-RECORDER 01.0 to 04.0 Cr

Prereq: Sat compl of beg class instr offered in area or equi

7184 201 To be arranged Fligel

101 MUSIC FUNDAMENTALS 02.0 Cr

7185 201 11.00-12.00 T Th Altg 116 Gordon R

11.00-12.00 M 0555 201

7186 202 11.00-12.00 T Th Altg 116 Gordon R

11.00-12.00 W 0555 201

7187 203 11.00-12.00 T Th Altg 116 Gordon R

11.00-12.00 F 0555 201

102 SURVEY-MUSIC LIT 02.0 Cr

Prereq: Music major or minor

7188 840 To be arranged London Barwick & Mueller

Above section meets July 6 - August 3

104B AURAL SKILLS 01.0 Cr

Prereq: 104a or with prior consent of instr,concur enroll

7189 201 08.40-09.40 T Th Altg 248 Bateman

105B BASIC HARMONY 03.0 Cr

Prereq: 105a

7190 201 07.30-08.30 MTWThF Altg 106 Fligel

140 APPLIED MUSIC 01.0 to 04.0 Cr

Prereq: 3 yrs prior stu,perf exp,or 2 sem C or better at 040

201 To be arranged

(See MUS 040 for listing.)

140Q APPLIED MUSIC-PIANO 01.0 to 02.0 Cr

Prereq: 3 yrs prior stu,perf exp,or 2 sem c or better at 040

7192 840 To be arranged London Barwick & Mueller

Above section meets July 6 - August 3

240 APPLIED MUSIC 01.0 to 04.0 Cr

Prereq: 2 sem of C or better at 140,or cons of applied jury

201 To be arranged

(See MUS 040 for listing.)

240Q APPLIED MUSIC-PIANO 01.0 to 02.0 Cr

Prereq: 2 sem of c or better at 140,orcons of applied jury

7194 840 To be arranged London Barwick & Mueller

Above section meets July 6 - August 3

280 BEGINNING COMP 02.0 Cr

Prereq: 105b or consent of instructor

7195 201 To be arranged Bottje

321 FORM AND ANALYSIS 02.0 Cr

Prereq: 204 and 207

7196 840 To be arranged London Barwick & Mueller

Above section meets July 6 - August 3

340 APPLIED MUSIC 01.0 to 04.0 Cr

Prereq: 2 sem of C or better at 240,or cons of applied jury

201 To be arranged

(See MUS 040 for listing.)

¹Elective Pass/Fail ²Mandatory Pass/Fail

340Q APPLIED MUSIC-PIANO				01.0 to 02.0 Cr
Prereq: 2 sem of c or better at 240, or cons of applied jury				
7198	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
346 OPERA WORKSHOP				01.0 to 12.0 Cr
7199	201	01.20-03.30	MTWThF	Altg 301 Wallace
347 MUS THEA WORKSHOP				01.0 to 12.0 Cr
Prereq: Audition				
7200	201	08.40-12.00	MTWThF	Comm 1037 Hanes & Wallace
07.00-10.00 pm MTWThF				Comm 1037
357A MUSIC HISTORY				03.0 Cr
Prereq: 102 and junior standing				
7201	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
357B MUSIC HISTORY				03.0 Cr
Prereq: 102 and junior standing				
7202	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
365A CHAMBER MUS-VOCAL				01.0 Cr
7203	201	To be arranged		Kageff
365B CHAMBER MUS-STRING				01.0 Cr
7204	201	To be arranged		Bakker
365C CHAMBER MUS-WOODWND				01.0 Cr
7205	201	To be arranged		Fligel
365D CHAMBER MUS-BRASS				01.0 Cr
7206	201	To be arranged		Lemasters & Koenigst
365F CHAMBER MUS-KEYBD				01.0 Cr
7207	201	To be arranged		
373 ROCK & POP MUSIC				03.0 Cr
7208	201	08.40-09.40	MTWThF	Lawson 131 Valk
380 INTERMEDIATE COMP				02.0 Cr
Prereq: 280-4				
7209	201	To be arranged		Bottje
398 PARTIAL RECITAL				01.0 Cr
Prereq: Prior or concur reg in 340 & approv of applied jury				
7210	700	To be arranged		
400 PERFORMANCE TECHNIQ				01.0 Cr
Prereq: Complete 340 level or equiv in some fld of appl mus				
7211	700	To be arranged		
420 INSTRUMENT REPAIR				01.0 Cr
7212	201	To be arranged		Lemasters
440 APPLIED MUSIC				01.0 to 04.0 Cr
Prereq: 2 sem of C or better at 340, or cons of applied jury				
201 To be arranged				
(See MUS 040 for listing.)				
440Q APPLIED MUSIC-PIANO				01.0 to 02.0 Cr
Prereq: 2 sem of c or better at 340, or cons of applied jury				
7214	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
453 ADV TOPIC-CHORAL MU				02.0 Cr
7215	401	08.40-12.00	MTWThF	Altg 115 Taylor
Above section meets June 13-24				
454 ADV TOPICS-INSTR MU				02.0 Cr
7216	401	08.40-12.00	MTWThF	Altg 115 Bakker
Above section meets July 25 - Aug 5				
468 MUSIC PRODUCTIONS				02.0 Cr
7217	201	To be arranged		Wallace
472 CHAMBER MUSIC LIT				02.0 Cr
7218	401	08.40-12.00	MTWThF	Altg 115 Bottje & Kageff
Above section meets June 27 - July 8				
473 PIANO LITERATURE				02.0 Cr
7219	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				

480 ADVANCED COMP				02.0 Cr
Prereq: 380-4				
7220	201	To be arranged		Bottje
481 READ IN MUS THEORY				01.0 to 04.0 Cr
Prereq: 321 and 322 or prior consent of instructor				
7221	201	To be arranged		Bottje
7222	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
482 READ-MUS HIST & LIT				01.0 to 04.0 Cr
Prereq: 357a & b or prior consent of instructor				
7223	700	To be arranged		
7224	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
483 READINGS IN MUS ED				01.0 to 04.0 Cr
7225	201	To be arranged		Gordon & Taylor
498 RECITAL				02.0 Cr
Prereq: Prior or concur regis in 440 & approv of applied jury				
7226	700	To be arranged		
499 INDEPENDENT STUDY				01.0 to 08.0 Cr
Prereq: Prior approv of selected instr				
7227	700	To be arranged		
7228	840	To be arranged	Europe	Barwick & Mueller
Above section meets May - June 11. 5CR grad, 6CR ugrad				
7229	841	To be arranged	London	Barwick & Mueller
Above section meets July 6 - Aug 3. 1 to 4 Cr.				
540 APPLIED MUSIC				01.0 to 04.0 Cr
Prereq: 2 sem of C or better at 440, or cons of applied jury				
201 To be arranged				
(See MUS 040 for listing.)				
540Q APPLIED MUSIC-PIANO				01.0 to 02.0 Cr
Prereq: 2 sem of c or better at 440, or cons of applied jury				
7231	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
566 ENSEMBLE				01.0 to 02.0 Cr
7232	201	To be arranged		
567 MUSIC THEA WORKSHOP				01.0 to 08.0 Cr
Prereq: Audition				
7233	201	08.40-12.00	MTWThF	Comm 1037 Hanes & Wallace
07.00-10.00 pm MTWThF				Comm 1037
568 OPERA WORKSHOP				01.0 to 08.0 Cr
7234	201	01.20-03.30	MTWThF	Altg 301 Wallace
570 HISTORY OF OPERA				03.0 Cr
Prereq: Compld grad hist prof exam. For nonmaj-instr consent				
7235	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
580 GRAD COMPOSITION				02.0 Cr
Prereq: 480-4 or prior cons of instr				
7236	201	To be arranged		Bottje
595 MUSIC DOCUMENT				02.0 Cr
Prereq: 501 and prior approv of topic by graduate committee				
7237	700	To be arranged		
7238	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				
598 GRADUATE RECITAL				04.0 Cr
Prereq: Compl 4cr in mus 540 & approv of applied jury				
7239	700	To be arranged		
599 THESIS				02.0 to 06.0 Cr
Prereq: 501(if writ rpt) & prior grad comm approv topic outl				
7240	700	To be arranged		
7241	840	To be arranged	London	Barwick & Mueller
Above section meets July 6 - August 3				

Nursing (NUR)

203A	NURSING	01.0 to 12.0 Cr
Prereq: 202-12		
7242	201 To be arranged	Hees A
Above section meets in Pulliam 204		

Occupational Education (OE)

301	OE AND EXPLORATION	03.0 Cr
7243	201 08.40-09.40 MTWThF Tech D	131 Huck
303	DIVERSIFIED CRAFTS	03.0 Cr
7244	201 07.30-09.40 MTWThF Pull I	14 Jenkins
7245	202 09.50-12.00 MTWThF Pull I	14 Jenkins
7246	203 01.20-03.30 MTWThF Pull I	14 Shields
450	ADV OCC SKILLS,KNOW	01.0 to 05.0 Cr
Prereq: Intermed level study in the specialty		
7247	700 To be arranged	
489	DEF & DEV OCCU PROG	03.0 Cr
7248	201 04.00-06.30 T Th Tech D	131 Buila
7249	202 06.40-09.10 pm T Th Tech A	122 Bortz
490	METH,MAT-OCCUP PROG	03.0 Cr
7250	201 01.20-03.50 T Th Tech D	130 Rosenbarger M
7251	202 04.00-06.30 M W Tech D	130 Shields
494	PRACTICUM	02.0 to 06.0 Cr
Prereq: 20 hrs in specialty		
7252	700 To be arranged	
505B	POL IMPL & SUPER-OE	03.0 Cr
7253	201 04.00-06.30 M W Tech A	208 Bittle R

Philosophy (PHIL)

304	ANCIENT PHILOSOPHY	03.0 Cr ¹
7260	201 09.50-10.50 MTWThF Faner	1032 Plochmann
342	SOCIAL PHILOSOPHY	03.0 Cr ¹
7261	201 09.50-10.50 MTWThF Faner	1228 Schedler G
490	SPECIAL PROBLEMS	03.0 Cr
Prereq: Consent of department		
7262	201 04.00-06.30 M W Faner	3059 Plochmann
Topic: 14th Century Thought		
7263	202 04.00-06.30 T Th Faner	3059
Topic: Philosophy of Mind		
491	UGRAD DIRECTED READ	01.0 to 03.0 Cr
Prereq: Consent of instructor		
7264	700 To be arranged	
501	PHIL OF RELIGION	03.0 Cr
7265	201 03.30-06.00 M W Faner	3113 Liu
Topic: Tillich		
590	GENERAL GRAD SEM	03.0 Cr
7266	201 01.20-04.40 T Th Faner	3113 Kelly
Topic: Descartes		
591	READINGS IN PHIL	01.0 to 16.0 Cr
Prereq: Consent of instructor		
7267	700 To be arranged	
599	THESIS	02.0 to 06.0 Cr
7268	700 To be arranged	
600	DISSERTATION	03.0 to 16.0 Cr
7269	700 To be arranged	

Photographic and Audio-Visual Technology (PAVT)

215	PHOTO PROCESSING IV	06.0 Cr
Prereq: 211		
7270	201 08.30-10.20 M W L3	119
To be arranged		
Six additional lab hours		

Physical Education For Men (PEM)

200B	METH TCH GYMNASTICS	01.0 Cr
7295	201 To be arranged	Meade W
200D	METH TCH SWIMMING	01.0 Cr
7296	201 12.10-01.10 MTWTh Tech A	422 Carroll P
To be arranged		
One additional hour		

¹Elective Pass/Fail ²Mandatory Pass/Fail

200E	TCH RACQBL,HB,P TEN	01.0 Cr
7297	201 07.30-09.40 T Th Arena	555 Ellis
200F	METH TEACH WRESTLNG	01.0 Cr
7298	201 To be arranged	Long L
Of enrollment by permission of instructor		
201A	METHODS TEACH GOLF	01.0 Cr
7299	201 07.30-09.40 M W Arena	555 Okita
201F	METH TCH VOLLEYBALL	01.0 Cr
7300	201 06.00-08.00 pm M W Arena	555 Wilkinson
303 KINESIOLOGY 02.0 CR		
SEE PEW FOR REGISTRATION.		
320	PHSL BASIS-HUM MOVE	03.0 Cr
Prereq: GSA 209 or equivalent		
7301	201 01.20-02.20 M W F Tech A	405 Ackerman K
12.10-02.20 T Th Tech A		
405	Ackerman K	
325	PRINCIPLES OF P E	02.0 Cr
7302	201 11.00-12.00 M W F Lingle	125 Shea
370 TESTS & MEASURE-P E 03.0 CR		
SEE PEW FOR REGISTRATION.		
407	PREVEN,REHB ATH INJ	02.0 Cr
7303	401 01.10-05.10 MTWThF Lingle	121 Spackman
Above section meets 6/13-6/24		
410	BEHAV FOUND-COACH	03.0 Cr
7304	201 12.10-01.10 MTWThF Lingle	125 Wilkinson
415e WORKSHOP- GYMNASTICS 01.0 CR		
SEE PEW FOR REGISTRATION.		
415j WORKSHOP- VOLLEYBALL 01.0 CR		
SEE PEW FOR REGISTRATION.		
444 CONTEMP DANCE WKSH P 02.0 TO 06.0 CR		
SEE PEW FOR REGISTRATION.		
493A	IND RES-DANCE	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7305	700 To be arranged	
493B	IND RES-KINESIOLOGY	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7306	700 To be arranged	
493C	IND RES-MEASUREMENT	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7307	700 To be arranged	
493D	IND RES-MOTOR DEVEL	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7308	700 To be arranged	
493E	IND RES-PHSL OF EX	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7309	700 To be arranged	
493F	IND RES-HIS & PHIL	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7310	700 To be arranged	
494A	PRACTICUM IN P.E.	01.0 Cr
Prereq: Consent of advisor		
7311	700 To be arranged	
494B	PRACTICUM IN P.E.	01.0 Cr
Prereq: Consent of advisor		
7312	700 To be arranged	
500	TECH OF RESEARCH	03.0 Cr
Prereq: Consent of adviser & 400 or concurrent enrol or equi		
7313	201 11.00-12.00 MTWThF Gym	204 Thorpe J
503	SEMINAR IN PHYS ED	02.0 Cr
7314	201 09.50-10.50 M W F Lingle	125 Shea
508	ADMIN OF ATHLETICS	02.0 Cr
7315	201 07.30-08.30 M W F Lingle	125 Stotlar
515	BODY COMP,PHYS PFRM	03.0 Cr
Prereq: 420 or equivalent		
7316	201 08.40-09.40 MTWThF Lingle	127 Knowlton R

517	ATH & PHYS ED FACIL	02.0 Cr
Prereq: PEM 357 or PEW 357 or equivalent		
7317	201 07.30-08.30 M W F Lingle 125 Stotlar	
590	READINGS IN PHYS ED	01.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7318	700 To be arranged	
592	RESEARCH PROJECT-PE	03.0 Cr
Prereq: 500 or equivalent, consent of advisor		
7319	700 To be arranged	
599	THESIS	03.0 to 06.0 Cr
Prereq: 500 or equivalent and consent of adviser		
7320	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
7321	700 To be arranged	

Physical Education For Women (PEW)

115D	EXERCISE FOR FITNES	00.5 Cr
7343	301 02.30-03.30 M W F Gym 207	
Above section meets 6/13-7/8		
115G	GOLF	00.5 Cr
7344	201 02.30-03.30 M W F Gym 207	
115M	TENNIS	01.0 Cr
7345	301 02.30-04.00 T Th Gym 207	
Above section meets 7/11-8/3		
240A	BEG TECH-CONT DANCE	02.0 Cr
7346	301 01.20-02.20 MTWThF Pull 42	
Above section meets 6/13-7/15		
258	WORK EXPERIENCE	01.0 to 05.0 Cr ²
Prereq: 12 credits of C or better in PEW courses		
7347	201 To be arranged Paratore J	
Restricted to written consent of instr- J. Paratore		
303	KINESIOLOGY	03.0 Cr
Prereq: Physiology 300		
7348	201 08.40-09.40 MTWThF Gym 204 Thorpe J	
304E	TCH TENNIS	01.0 Cr
Prereq: 115m,210		
7349	301 07.30-08.30 MTWThF Gym 207	
Above section meets 6/13-7/8		
304H	TCH BADMINTON	01.0 Cr
Prereq: 115b,210		
7350	301 07.30-08.30 MTWThF Gym 207	
Above section meets 7/11-8/3		
305	P E FOR SPECIAL STU	02.0 Cr
Prereq: At least junior standing		
7351	201 12.10-01.10 M W F Gym 204 Potter	
316	ADVANCED SWIMMING	01.0 Cr ¹
Prereq: 115l or GSE 111b or equivalent; consent of instruct		
7352	401 08.40-09.40 MTWThF Pull P 61	
Above section meets 6/13-7/8		
318	WATER SAFETY INSTR	02.0 Cr ¹
Prereq: 316 & cur Red Cross adv lifesav cert; cons of instr		
7353	301 08.40-09.40 MTWThF Pull P 61	
Above section meets 7/5-8/3		
319	PHYS ACT-CHLD & YTH	03.0 Cr
7354	201 07.30-08.30 MTWThF Pull 102	
7355	202 08.40-09.40 MTWThF Pull 102	
320	PHSL BASIS-HUM MOVE	03.0 Cr
Prereq: GSA 209 or equivalent		
7356	201 01.20-02.20 M W F Tech A 405	
	12.10-02.20 T Th Tech A 405	
325	PRINCIPLES OF P E	02.0 Cr
7357	201 11.00-12.00 M W F Lingle 125 Shea	
360A	THEORY-OFFIC BADMIN	00.5 Cr ²
Prereq: The corresponding activity course		
7358	201 To be arranged	
360B	THEORY-OFF BASKETBL	00.5 Cr ²
Prereq: The corresponding activity course		
7359	201 To be arranged	
360C	THEORY-OFF FLD HOCK	00.5 Cr ²
Prereq: The corresponding activities course		
7360	201 To be arranged	

360D	THEORY-OFFIC GYMNAS	00.5 Cr ²
Prereq: The corresponding activity course		
7361	201 To be arranged	
360E	THEORY-OFFIC SOFTBL	00.5 Cr ²
Prereq: The corresponding activity course		
7362	201 To be arranged	
360F	THEOR-OFF COMP SWIM	00.5 Cr ²
Prereq: The corresponding activity course		
7363	201 To be arranged	
360G	THEOR-OFF SYNC SWIM	00.5 Cr ²
Prereq: The corresponding activity course		
7364	201 To be arranged	
360H	THEOR-OFF TRK & FLD	00.5 Cr ²
Prereq: The corresponding activity course		
7365	201 To be arranged	
360I	THEORY-OFFIC VOLLBL	00.5 Cr ²
Prereq: The corresponding activity course		
7366	201 To be arranged	
370	TESTS & MEAS IN P E	03.0 Cr
Prereq: At least junior standing		
7367	201 09.50-10.50 MTWThF Gym 204 West C	
407	PREVEN,REHB ATH INJ	02.0 Cr
7368	401 01.10-05.10 MTWThF Lingle 121	
Above section meets 6/13-6/24		
415E	WORKSHOP-GYMNASTICS	01.0 Cr
7369	501 To be arranged	
Above section meets 7/15-16 (8-5 Fri- Sat)		
415J	WORKSHOP-VOLLEYBALL	01.0 Cr
7370	501 To be arranged	
Above section meets 7/11-7/15 (1-5 MTWTF).		
444	CONTEMP DANCE WKSHP	02.0 to 06.0 Cr
Prereq: One year of technique & theory or equivalent		
7371	401 01.20-05.20 MTWThF Pull 42	
Above section meets 7/18-8/3		
493A	IND RES-DANCE	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7372	700 To be arranged	
493B	IND RES-KINESIOLOGY	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7373	700 To be arranged	
493C	IND RES-MEASUREMENT	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7374	700 To be arranged	
493D	IND RES-MOTOR DEVEL	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7375	700 To be arranged	
493E	IND RES-PHSL OF EX	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7376	700 To be arranged	
493F	IND RES-HIS & PHIL	02.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7377	700 To be arranged	
494A	PRACTICUM IN P.E.	01.0 Cr
Prereq: Consent of advisor		
7378	201 To be arranged	
494B	PRACTICUM IN P.E.	01.0 Cr
Prereq: Consent of advisor		
7379	201 To be arranged	
500	TECH OF RESEARCH	03.0 Cr
Prereq: Consent of adviser & 400 or concurrent enrol or equi		
7380	201 11.00-12.00 MTWThF Gym 204 Thorpe J	
503	SEMINAR IN PHYS ED	02.0 Cr
7381	201 09.50-10.50 M W F Lingle 125 Shea	
505	TOPICAL SEM IN P.E.	02.0 Cr
Prereq: Consent of instructor		
7382	201 To be arranged	
515	BODY COMP,PHYS PFRM	03.0 Cr
Prereq: 420 or equivalent		
7383	201 08.40-09.40 MTWThF Lingle 127 Knowlton	
517	ATH & PHYS ED FACIL	02.0 Cr
Prereq: PEM 357 or PEW 357 or equivalent		
7384	201 07.30-08.30 M W F Lingle 125 Stotlar	

590	READINGS IN PHYS ED	01.0 to 04.0 Cr
Prereq: Consent of adviser & dept chairman		
7385	700 To be arranged	
592	RESEARCH PROJECT-PE	03.0 Cr
Prereq: 500 or equivalent, consent of advisor		
7386	700 To be arranged	
599	THESIS	03.0 to 06.0 Cr
Prereq: 500 or equivalent and consent of adviser		
7387	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
7388	700 To be arranged	

Physical Therapist Assistant (PTH)

321	CLINICAL INTERNSHIP	10.0 Cr
Prereq: Complete all PTH curric req with minimum GPA 2.0		
7389	201 To be arranged	Okita T
322	CLINICAL SEMINAR	02.0 Cr ²
Prereq: Concurrent enrollment in 321		
7390	201 To be arranged	Okita T

Physics and Astronomy (PHYS)

203A	COLLEGE PHYSICS	03.0 Cr ¹
Prereq: Math 110b or 111		
7395	201 08.40-09.40 MTWThF Nkrs B	440 Bose S
203B	COLLEGE PHYSICS	03.0 Cr ¹
Prereq: Math 110b or 111		
7396	201 07.30-08.30 MTWThF Nkrs B	440 Saporoschenko M
205A	UNIVERSITY PHYSICS	03.0 Cr ¹
Prereq: Math 150 or concurrent enrl		
7397	201 08.40-09.40 MTWThF Nkrs C	118 Nickell W
205B	UNIVERSITY PHYSICS	03.0 Cr ¹
Prereq: 205a		
7398	201 09.50-10.50 MTWThF Nkrs C	118 Nickell W
205C	UNIVERSITY PHYSICS	03.0 Cr ¹
Prereq: 203 or 204 or 205a,b		
7399	201 11.00-12.00 MTWThF Nkrs C	410 Telschow K
253A	COLLEGE PHYSICS LAB	01.0 Cr ¹
7400	201 12.10-03.30 T Nkrs C	403 Mckenzie C
253B	COLLEGE PHYSICS LAB	01.0 Cr ¹
7401	201 12.10-03.30 Th Nkrs C	405 Krishnan B
7402	202 02.30-05.50 M Nkrs C	405
255A	UNIVERSITY PHYS LAB	01.0 Cr
Prereq: Concurrent enrollment in 205a		
7403	201 12.10-03.30 Th Nkrs C	403
255B	UNIVERSITY PHYS LAB	01.0 Cr
Prereq: Concurrent enrollment in 205b		
7404	201 12.10-03.30 W Nkrs C	405 Krishnan B
255C	UNIVERSITY PHYS LAB	01.0 Cr ¹
Prereq: 203 or 204 or 205a,b or 302 or concurrent enrollment		
7405	201 01.20-04.40 T Nkrs C	404
302	ASTRONOMY-HONORS	03.0 Cr ¹
Prereq: One of 203a,204a,or 205a,plus MATH 111 or cons instr		
7406	201 01.20-02.20 MTWThF Faner	2204 Gruber B
320	ELECT & MAGNETISM I	03.0 Cr ¹
Prereq: 301 or MATH 305 or concurrent enrollment		
7407	201 03.40-04.40 MTWThF Nkrs A	156
428	MODERN OPTICS	02.0 Cr ¹
Prereq: 328 and 420		
7408	201 02.30-03.30 M W F Faner	2204 Henneberger W
470	SPECIAL PROJECTS	01.0 to 03.0 Cr ¹
Prereq: 310, 320		
7409	700 To be arranged	
570	SPEC PROJECTS-PHYS	01.0 to 04.0 Cr
Prereq: Consent of instructor		
7410	201 To be arranged	
7411	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
7412	700 To be arranged	

Physiology (PHSL)

301	SURVEY HUMAN ANAT	04.0 Cr
Prereq: Not open to students who have taken PHSL 300		
7417	201 07.30-08.30 MTWThF Lawson	101 Mickus J
	09.50-01.10 T LS II	155
7418	202 07.30-08.30 MTWThF Lawson	101 Mickus J
	09.50-01.10 Th LS II	155
414	ANAT,PHSL-SPCH,HEAR	03.0 Cr
Prereq: Consent of instructor required for graduate students		
7419	201 07.30-08.30 MTWThF LS II	149B Kaplan H
460	ELECTRON MICROSCOPY	02.0 Cr
Prereq: Permission of instructor		
7420	201 08.40-09.40 T Th LS II	149B Kaplan H
	09.50-12.00 T LS II	149B
492	SPECIAL PROB-PHSL	01.0 to 03.0 Cr
7421	700 To be arranged	
590	RD/RES-CUR PHSL TOP	01.0 to 04.0 Cr
7422	700 To be arranged	
599	THESIS RESEARCH	01.0 to 06.0 Cr
7423	700 To be arranged	
600	DISSERTATION RES	01.0 to 32.0 Cr
7424	700 To be arranged	

Plant and Soil Science (PLSS)

200	PRIN FLD CROP PROD	03.0 Cr
7425	201 08.40-09.40 MT ThF Ag	166 Olsen
	07.30-09.40 W Ag	171
225	GENET FOR AMAT GARD	02.0 Cr
7426	201 12.10-01.40 T Th Ag	144 Myers O
258	WORK EXPERIENCE	01.0 to 30.0 Cr ²
Prereq: Consent of department		
7427	700 To be arranged	
346	SOIL & WATER CONSER	02.0 Cr
Prereq: A course in soils suggested		
7428	201 09.50-10.50 M W F Ag	132 Jones J
359	INTERN PROGRAM	01.0 to 06.0 Cr ²
Prereq: Junior standing and approval of department		
7429	700 To be arranged	
381	PLSS SEMINAR	01.0 Cr
Prereq: Junior standing		
7430	201 07.30-08.30 M F Ag	132 Maleike
390	SP STUDIES IN PLSS	01.0 to 04.0 Cr
Prereq: Consent of department chairman		
7431	700 To be arranged	
391	HONORS IN PLSS	01.0 to 04.0 Cr
Prereq: GPA-3.0 with 3.25 in major, & consent of dept chrnm		
7432	700 To be arranged	
423	GREENHOUSE MGT	03.0 Cr
Prereq: 220 or cons of instr		
7433	201 11.00-12.00 MT ThF Ag	152 Coorts
	11.00-01.10 W Ag	181 Pierceall
547	SOIL-PLANT NUTR REL	02.0 Cr
Prereq: 447 or equivalent		
7434	201 07.30-09.10 T Th Ag	144 Varsa
588	INTERNATL GRAD STU	01.0 to 08.0 Cr
Prereq: Cons of dept chairman		
7435	700 To be arranged	
590	READINGS	01.0 to 04.0 Cr
Prereq: Cons of dept		
7436	700 To be arranged	
592	SPECIAL PROBLEMS	01.0 to 03.0 Cr
Prereq: Cons of dept		
7437	700 To be arranged	
593	INDIVIDUAL RESEARCH	01.0 to 04.0 Cr
Prereq: Cons of dept		
7438	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
Prereq: Cons of dept		
7439	700 To be arranged	

¹Elective Pass/Fail ²Mandatory Pass/Fail

Political Science (POLS)

200	INTR DIS POLS-SCOPE	03.0 Cr ¹
7446 201 11.00-12.00	MTWThF Faner 1222 Garner	
213	ST & LOCAL GOVT	03.0 Cr ¹
Prereq: GSB 212		
7447 201 12.10-01.10	MTWThF Faner 1026 McGrath	
303	INTRO-POLIT THEORY	03.0 Cr ¹
Prereq: 200 recommended		
7448 201 09.50-10.50	MTWThF H Ec 106 Paine J	
319	POLITICAL PARTIES	03.0 Cr ¹
Prereq: GSB 212		
7449 201 08.40-09.40	MTWThF Faner 1136 Jackson	
322	AMERICAN CHIEF EXEC	03.0 Cr ¹
Prereq: GSB 212		
7450 201 01.20-02.20	MTWThF Faner 1222 Nelson	
324	POLITICS & PUB POL	03.0 Cr ¹
Prereq: GSB 212		
7451 201 02.30-03.30	MTWThF Faner 1004 Foster J	
332	LAW&CIVIL LIBERTIES	03.0 Cr ¹
Prereq: GSB 212 recommended		
7452 201 11.00-12.00	MTWThF Faner 1026 Nelson	
340	INTRO PUBLIC ADMIN	03.0 Cr ¹
Prereq: GSB 212		
7453 201 12.10-01.10	MTWThF Faner 1222 Ervin O	
390	READINGS-POL SCI	01.0 to 06.0 Cr
Prereq: Consent of instructor prior to registration		
7454 700	To be arranged	
395	INTERN-PUB AFFAIRS	02.0 to 12.0 Cr
Prereq: Consent of faculty supervisor & dept chairperson		
7455 700	To be arranged	
415	URBAN POLITICS	03.0 Cr ¹
Prereq: 213		
7456 201 01.20-02.20	MTWThF Faner 1228 Mason	
426	POL OF SOC WELFARE	03.0 Cr ¹
7457 201 09.50-10.50	MTWThF Faner 1222 McGrath	
437	JURISPRUDENCE	03.0 Cr ¹
7458 201 11.00-12.00	MTWThF Faner 1032 Jacobini	
444	POLICY ANALYSIS	03.0 Cr ¹
7459 201 12.10-01.10	MTWThF Faner 1032 Foster J	
480	INTERNATL POLITICS	03.0 Cr ¹
7460 201 08.40-09.40	MTWThF Faner 1222 Landecker & Stauber	
494	HONORS RESEARCH	01.0 to 06.0 Cr
Prereq: Consent of instructor & chairman, B average in POLS		
7461 700	To be arranged	
511	TOP SEM-AM POLITICS	03.0 Cr
Prereq: Basic courses, related training or consent of instr		
7462 201 01.20-04.00	M W Faner 3075 Miller	
518	SEM-POLIT PARTIES	03.0 Cr
Prereq: Basic courses, related training or consent of instr		
7463 201 09.50-12.30	T Th Faner 3075 Derge D	
521	SEM-LEGIS PROCESS	03.0 Cr
Prereq: Basic courses, related training or consent of instr		
7464 201 08.40-11.10	M W Faner 3075 Van Der Slik	
568	SEM-COMPAR ANALYSIS	03.0 Cr
7465 201 01.20-04.00	T Th Faner 3075 Paine J	
590	READINGS	01.0 to 06.0 Cr
Prereq: Consent of instructor		
7466 700	To be arranged	
591	INDIVIDUAL RESEARCH	01.0 to 06.0 Cr
Prereq: Consent of instructor		
7467 700	To be arranged	
595	INTERNSHIP-PUB AFF	01.0 to 06.0 Cr
Prereq: Consent of department		
7468 700	To be arranged	
599	THESIS	01.0 to 06.0 Cr
Prereq: Consent of instructor		
7469 700	To be arranged	

600 DISSERTATION

01.0 to 16.0 Cr

7470 700 To be arranged

Presidents Scholars (PRS)

299	HONORS PROJECT	01.0 to 15.0 Cr
Prereq: Consent of Presidents Scholar program		
7471 700	To be arranged	
399	HONORS PROJECT	01.0 to 15.0 Cr
Prereq: Consent of Presidents Scholar program		
7472 700	To be arranged	
499	UGRAD HONORS THESIS	03.0 to 09.0 Cr
Prereq: Consent of department and of Presidents Schol prog		
7473 700	To be arranged	

Psychology (PSYC)

211	RESEARCH METH-PSYC	04.0 Cr
Prereq: GSB 202		
7481 201 01.20-02.20	MTWThF Lawson 221 Ramanaiah N	
301	CHILD PSYCHOLOGY	03.0 Cr ¹
Prereq: GSB 202		
7482 301 02.30-04.30	MTWThF Lawson 121 Molfese D	
Above section meets 6/13-7/8.		
305	PSYC OF PERSONALITY	03.0 Cr ¹
Prereq: GSB 202		
7483 201 09.50-10.50	MTWThF Lawson 121 Durlak	
307	SOCIAL PSYC	03.0 Cr ¹
Prereq: GSB 202		
7484 201 11.00-12.00	MTW F Lawson 201 Mitchell T	
	11.00-12.00 Th Lawson 121	
316	EXP PSYC-SOCIAL	03.0 Cr
Prereq: 211,307		
7485 201 01.20-02.20	MTWThF Faner 2006 Meneel S	
391	INDIVIDUAL STUDY	01.0 to 12.0 Cr ²
Prereq: Consent of instructor		
7486 700	To be arranged	
392	INDIVIDUAL STUDY	01.0 to 12.0 Cr
Prereq: Consent of instructor		
7487 700	To be arranged	
431	PSYCHOPATHOLOGY	03.0 Cr ¹
Prereq: 305 or cons of instr		
7488 201 08.40-09.40	MTWThF Lawson 121 Levinson M	
Above section restricted to Psychology majors		
7489 202 08.40-09.40	MTWThF Lawson 121 Levinson M	
432	PSYCHOPATH-CHILDDHD	03.0 Cr
Prereq: 301, and 211 or GUID 422		
7490 201 11.00-12.00	MTWThF Faner 2008 Odonnell J	
459	THEO & PRAC-PRE SCH	03.0 Cr
Prereq: Consent of instructor		
7491 301 07.30-08.30	MTWThF Faner 2010 Dunagan S	
Above sect, 7 hrs prac per wk in A.M. Meets 6/13-7/8.		
Consent of the Department of Psychology is necessary For unclassified graduate students to register in 400 and 500 level courses in PSYC.		
489	SEM-SELECTED TOPICS	01.0 to 12.0 Cr
Prereq: Cons of instr		
7492 201	To be arranged	Harren
Above section for 3 Credits		
525	MENTAL TEST THEORY	03.0 Cr
Prereq: 421 or consent of instructor		
7493 201	To be arranged	Ramanaiah
531	COMM,INST FLD PLACE	03.0 to 06.0 Cr
Prereq: 530b, PSYC grad-clinic or cons req for clinical stu		
7494 201 09.50-12.00	F Faner 1224 Ringuette E	
585	ADVANCED SEMINAR	03.0 Cr
Prereq: Cons of instr		
7495 201	To be arranged	Lit A
7496 202	To be arranged	Moreland
7497 203	To be arranged	Baez L
7498 301	To be arranged	Schmeck
Above section meets 6/13-7/8.		
7499 302 08.40-11.15	MTWThF LS II 285D Meltzer D	
Above section meets 6/13-7/8.		
7500 303 08.40-11.15	MTWThF LS II 285D Schill T	
Above section meets 7/11-8/3.		
7501 304 02.00-05.00	T Th LS II 226 Rader & Miller	
Above section meets 6/13-7/14.		

590 READINGS IN PSYC

01.0 to 12.0 Cr

Prereq: Cons of instr

7502 700 To be arranged

593 RESEARCH IN PSYC

01.0 to 24.0 Cr

Prereq: Consent of instructor

7503 700 To be arranged

594E PRACT-CLINICAL PSYC

01.0 to 16.0 Cr

Prereq: Consent of instructor

7504 201 To be arranged

7505 202 To be arranged

7506 203 To be arranged

594F PRACT-COUNSEL PSYC

01.0 to 16.0 Cr

Prereq: Consent of instructor

7507 201 09.50-10.50 MTWThF LS II 430 Snyder

594L PRACT-TEACHING PSYC

01.0 to 16.0 Cr

Prereq: Consent of instructor

7508 201 12.10-01.10 T LS II 430 Carrier N

595 INTERNSHIP

01.0 to 12.0 Cr

Prereq: Psychology graduate student

7509 700 To be arranged

597 PREPROFESSION TRAIN

01.0 to 15.0 Cr

Prereq: Psychology graduate student

7510 700 To be arranged

599 THESIS

01.0 to 06.0 Cr

7511 700 To be arranged

600 DISSERTATION

01.0 to 24.0 Cr

7512 700 To be arranged

Public Visual Communications (PVC)**591 INDIV STUDY IN PVC**

01.0 to 03.0 Cr

Prereq: 500

7513 700 To be arranged

597 PRODUCTION SEMINAR

02.0 to 06.0 Cr

Prereq: 500 & 24 hrs completed grad work or cons-student com

7514 700 To be arranged

599 THESIS

03.0 to 06.0 Cr

Prereq: 500, 589

7515 700 To be arranged

Radio-Television (R-T)**300M WRIT PERFORM PROD**

04.0 Cr

Prereq: Sophmore standing

7516 201 01.20-03.30 M W Lawson 101 Olson T

08.40-10.50 T Th Comm 1015

7517 202 01.20-03.30 M W Lawson 101 Olson T

08.40-10.50 M W Comm 1015

300P R-T FOUND & PROGRAM

04.0 Cr

Prereq: Sophomore standing

7518 201 11.00-12.00 M W F Comm 1046 Lynch

11.00-01.10 T Th Comm 1046

305 BASIC COMM RESEARCH

02.0 Cr

Prereq: C in 300m and p

7519 201 12.10-01.10 M W F Comm 1046 Yoder J

308 BROADCAST LAW & POL

03.0 Cr

Prereq: C in 300m and p

7520 201 01.20-02.20 MTWThF Comm 1046 Kurtz

310 R-T NEWS WRITING

03.0 Cr

Prereq: C in 300m and p;308

7521 201 09.50-10.50 MTWThF Comm 1046 Criswell W

311 R-T NEWS REPORTING

03.0 Cr

Prereq: C in 300m and p;308 and 310

7522 201 08.40-09.40 MTWThF Comm 1046 Brown

340 PROD ANAL-MEDIA CRI

03.0 Cr

Prereq: C in 300m and p

7523 201 02.30-03.30 MTWThF Comm 1046 Shipley

351 PROGRAMS & AUDIENCE

03.0 Cr

Prereq: C in 300m and p

7524 201 11.00-12.00 M W F Lawson 121 Dybvig H

11.00-12.00 T Th Lawson 101

360 R-T PERFORMANCES

04.0 Cr

Prereq: B in 300m, C in 300p; Speech 104

7525 201 11.00-12.00 M W F Comm 1015 Hildreth R

11.00-01.10 T Th Comm 1015

363 INTERMED RADIO PROD

03.0 Cr

Prereq: C in 300m and p

7526 201 12.10-02.20 M W F Comm 1016 Garry K

01.20-02.20 T Th Comm 1016

365 TV STUDIO OPERATION

02.0 Cr

Prereq: C in 300m and p

7527 201 04.50-05.50 M W Comm 1046 Mampre

To be arranged

370 TV NEWSFILM PRODUCT

03.0 Cr

Prereq: C in 300m and p

7528 201 12.10-01.10 TW F Comm 1018 Ryan S

12.10-02.20 M Comm 1018

377 R-T ADVER AND SALES

03.0 Cr

Prereq: C in 300m and p, and in 351

7529 201 07.30-08.30 MTWThF Comm 1046 Dybvig H

383 BASIC R-T WRITING

03.0 Cr

Prereq: C in 300m and p; 340

7530 201 02.30-03.30 M W F Comm 1016 Yoder J

02.30-04.40 T Th Comm 1016

384 RADIO-TV PRACTICUM01.0 to 02.0 Cr²

Prereq: C in 300m and p, and consent of instructor

7531 201 04.50-05.50 T Comm 1046 Rochelle D

To be arranged

391 INDEPENDENT STUDY

01.0 to 02.0 Cr

Prereq: C in 300m and p; consent of instructor

7532 201 04.50-05.50 Th Comm 1046

To be arranged

393 RADIO,TV & SOCIETY

03.0 Cr

Prereq: C in 300m & p; completion of 90hours

7533 201 09.50-10.50 MTWThF Comm 1046 Ryan S

395 INTERNSHIP PROGRAM

02.0 to 04.0 Cr

Prereq: Jr status, 3.0 or better avg in maj, & sel comm cons

7534 201 04.50-05.50 F Comm 1046 Lynch C

To be arranged

489 RADIO-TV WORKSHOP

02.0 to 06.0 Cr

Prereq: C grade in 300m,p & consent of instructor

7535 201 To be arranged Terwische D

7536 202 To be arranged Olson T

491 INDEPENDENT STUDY

03.0 Cr

Prereq: C grade in 300m and 300p and consent of instructor

7537 201 04.50-05.50 Th Comm 1046

To be arranged

Recreation (REC)**300 INTRO-LEISURE & REC**

03.0 Cr

7540 201 08.40-09.40 MTWThF Wham 305 Malinauskas

305 REC PROG & LDRSH

03.0 Cr

Prereq: Must be taken concurrently with 300

7541 201 11.00-12.00 MTWThF Wham 305 Allen

310A REC SKL-SOC REC

02.0 Cr

Prereq: 300, 305 and 315

7542 201 01.20-02.20 M W F Wham 305

310C REC SKL-LEISURECRFT

02.0 Cr

Prereq: 300, 305 and 315

7543 201 12.10-01.10 M W F Wham 305 Malinauskas

310E REC SKL-CAMPCRAFT

02.0 Cr

Prereq: 300, 305 and 315

7544 201 02.30-03.30 M W F Wham 305 Abernathy

315 REC FOR SPEC GROUPS

03.0 Cr

Prereq: Concurrent enrollment in 300 and/or 305

7545 201 09.50-10.50 MTWThF Wham 305 Loveland

340A ACT-MENTAL RETARDED

01.0 Cr

Prereq: 300, 305 and 315

7546 201 02.30-04.40 Th Wham 305 Malinauskas

350A REC WKSH-P DAY CAMPS

01.0 Cr

Prereq: 300, 305 and 315

7547 201 01.20-03.30 W Pull 227

¹Elective Pass/Fail²Mandatory Pass/Fail

350B REC WKSHP-PUPPETRY			01.0 Cr
Prereq: 300, 305 and 315			
7548	850 08.00-05.00	Th F S Mt. Vrn	Taylor L
Above section meets June 23 - 25			
350C REC WKSHP-STORYTELL			01.0 Cr
Prereq: 300, 305 and 315			
7549	850 08.00-05.00	Th F S Chicago	Taylor L
Above section meets July 21 - 23			
365 PARK & REC ADMINIS			03.0 Cr
Prereq: 300, 305 and 315			
7550	201 07.30-08.30	MTWThF Wham	305 Smith
380A FLD WRK-PARK & COMM			01.0 to 06.0 Cr
7551	201 To be arranged		Abernathy W
380B FLD WRK-SPECIAL POP			01.0 to 06.0 Cr
7552	201 To be arranged		Freeberg W
385 BASIC RES, READ-REC			01.0 to 02.0 Cr
Prereq: 300, 305 and 315			
7553	201 To be arranged		O'Brien & Allen
401 ENVIRONMENT EDUCAT			03.0 Cr
7554	201 07.30-12.00	M 0832	101 Yambert P
	07.30-08.30	W 0832	101
To be arranged			
Field Trips TBA			
470 SCH & COMMUNITY REC			02.0 Cr
Prereq: 300, 305 and 315			
7555	201 09.50-10.50	M W F Wham	303 Allen J
475A WORKSHOP-COMMERCIAL			02.0 Cr
7556	850 To be arranged	Chicago	Loveland J
475C WORKSHOP-OUTDOOR ED			02.0 Cr
7557	850 To be arranged	Ozark	Freeberg W
475D WORKSHP-OUTDOOR REC			02.0 Cr
7558	850 To be arranged	Kentuc	Mcewen D
Above section meets May 15 - 25			
7559	851 To be arranged	Mo.	Abernathy & Smith
Above section meets May 17 - 20			
475M WKSHP-PLAYGRND LEAD			01.0 to 02.0 Cr
7560	850 To be arranged	Dubois	Freeberg W
Above section meets May 16 - June 11			
475N WORKSHP-MAINT AREAS			02.0 Cr
7561	501 To be arranged		Abernathy & Taylor
Above section meets May 27 - May 30			
490A INTERN-PARK & COMM			02.0 to 12.0 Cr
Prereq: 16 hours of recreation and consent of instructor			
7562	201 To be arranged		Abernathy & O'Brien
490B INTERN-SPEC POPULAT			02.0 to 12.0 Cr
Prereq: 16 hours of recreation and consent of instructor			
7563	201 To be arranged		Freeberg
500 PRINCIPLES OF REC			03.0 Cr
7564	201 08.40-09.40	MTWThF Pull	35 Loveland
520 PARK & REC MGT			03.0 Cr
Prereq: 500 or concurrent enrollment or consent of instr			
7565	201 01.20-02.20	MTWThF Wham	303 Smith O
530 PROGRAMS IN REC			03.0 Cr
Prereq: 500 or concurrent enrollment or consent of instr			
7566	201 07.30-08.30	MTWThF Wham	303
540 PLAN OUTDOOR AREAS			03.0 Cr
Prereq: 500 or consent of instructor			
7567	201 08.40-09.40	MTWThF Wham	303 Taylor
575 INDIVIDUAL RESEARCH			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7568	201 To be arranged		Freeberg
7569	202 To be arranged		Mcewen
596 FIELD WORK IN REC			01.0 to 06.0 Cr
Prereq: Major in recreation and permission of the department			
7570	201 To be arranged		Taylor

599 THESIS			01.0 to 03.0 Cr
Prereq: Consent of the department			
7571	201 To be arranged		Freeberg
Rehabilitation (REHB)			
400 INTRO TO REHAB			03.0 Cr
7572	201 08.40-10.50	M Ag	224 Craig K
	08.40-12.00	W Ag	224
7573	202 06.00-08.30 pm	M W Cl	328 Viecei L
402 HUMAN DEVEL & BEHAV			02.0 Cr
7574	201 11.00-12.00	M W F Wham	303 Bryson S
406 INTRO TO BEHAV MOD			03.0 Cr
7575	201 08.40-09.40	MTWThF Lawson	161 Poppen & Azrin
421 VOC DEVEL & PLACE			03.0 Cr
Prereq: 400 or 501			
7576	201 12.30-03.00	M W Cl	323 Viecei L
425 DEV EMPLOY OPPORTUN			01.0 to 06.0 Cr
Prereq: Special standing & consent of instructor			
7577	201 To be arranged		Viecei L
431 ASSESS PROC IN REHB			03.0 Cr
7578	201 12.30-03.00	M W Cl	326 Cuvo A
445B SERV-ALCO, DRUG ABU			02.0 Cr
Prereq: Consent of instructor			
7579	201 09.00-12.00	M Cl	326 Grenfell
445C SERV-ECON DEPRIVED			02.0 Cr
Prereq: Consent of instructor			
7580	201 07.00-10.00 pm	W Cl	326 Schumacher B
445D REHB SERV-EMOT DIST			02.0 Cr
Prereq: Consent of instructor			
7581	201 03.40-05.10	M W Cl	326 Allen H
445I REHB SER-PUB OFFEND			02.0 Cr
Prereq: Consent of instructor			
7582	201 09.00-12.00	F Cl	326 Grenfell J
479 TECH WRITING-REHAB			00.0 to 02.0 Cr
7583	201 04.00-05.30	M W Wham	203 Hawley
7584	202 06.00-09.30 pm	Th Wham	203
490 READINGS IN REHAB			01.0 to 03.0 Cr
Prereq: Consent of instructor			
7585	700 To be arranged		
494 WORK EXPER IN REHAB			01.0 to 12.0 Cr ¹
Prereq: Consent of department			
7586	700 To be arranged		
501 REHAB FOUNDATIONS			02.0 Cr
Prereq: Consent of the instructor			
7587	201 06.00-10.00 pm	M Cl	334 Allen H
513 MED, PSY-SOC ASP-DIS			03.0 Cr
Prereq: Consent of department			
7588	201 08.40-10.50	W H Ec	122 Bender E
	05.30-08.30	Th Cl	328
555 CONTINGEN-REINFORCE			02.0 Cr
Prereq: Consent of instructor			
7589	201 06.00-09.00 pm	Th Cl	326 Poppen R
562 REHAB FACIL, DEV CTR			03.0 Cr
Prereq: Consent of instructor			
7590	201 To be arranged		Lorenz J
570 REHB ADMINISTRATION			03.0 Cr
Prereq: Consent of instructor			
7591	201 12.10-02.40	T Th Cl	326 Robinson
584 SEM-BEHAVIOR MOD			01.0 to 04.0 Cr
Prereq: Consent of instructor			
7592	201 09.50-12.00	M Faner	2206 Poppen R
585 SEM-COUNS/COORD SER			01.0 to 04.0 Cr
Prereq: Consent of instructor			
7593	201 09.00-12.00	W Cl	326 Gardner M
7594	202 02.30-03.30	M W F H Ec	202 Bryson & Renzaglia
591 INDEP PROJECTS-REHB			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7595	700 To be arranged		
593 RESEARCH IN REHAB			01.0 to 06.0 Cr
Prereq: Consent of instructor			
7596	201 02.30-05.00	T Th Cl	323 Hawley
7597	700 To be arranged		

594A	PRACT IN REHB-ADMIN	01.0 to 12.0 Cr
Prereq: Consent of dept		
7598	700 To be arranged	
594B	PRACT-BEHAV MODIFIC	01.0 to 12.0 Cr
Prereq: Consent of dept		
7599	700 To be arranged	
594C	PRACT IN REHB COUNS	01.0 to 12.0 Cr
Prereq: Consent of dept		
7600	700 To be arranged	
595	INTERNSHIP IN REHAB	01.0 to 12.0 Cr
Prereq: 594 and consent of department		
7601	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
Prereq: Consent of instructor		
7602	700 To be arranged	

Religious Studies (RELS)

333	MYTH & RITUAL	04.0 Cr ¹
7603 201 09.50-10.50 M W F Faner 2006 Bengtson D		
09.50-12.00 T Th Faner 2006		
396	COMPAR STU-RELIGION	03.0 Cr ¹
Prereq: Consent of instructor		
7604	201 08.40-09.40 MTWThF Faner 2006 Hutch R	
496	HONORS READINGS-REL	01.0 to 06.0 Cr
Prereq: Consent of department		
7605	700 To be arranged	

Russian (RUSS)

288A	RUSS AS A RES TOOL	03.0 Cr
7606 201 08.40-09.40 MTWThF Faner 2061 Kupeck		
350	RUSSIAN PHONETICS	03.0 Cr ¹
Prereq: 201b		
7607	201 09.50-10.50 MTWThF Faner 2008 Kupeck	
465	SOVIET RUSSIAN LIT	03.0 Cr ¹
Prereq: 310 or equivalent		
7608	201 To be arranged	Kupeck

School of Technical Careers (STC)

103	FUNDAMENT OF MATH	02.0 Cr
7609 850 To be arranged Rahmp Smith D		
115A	INTRO CHEM-INORGAN	02.0 Cr
7610 850 To be arranged Rahmp Smith D		
141	INTRO PHSL&HUM ANAT	03.0 Cr
7611 850 To be arranged Rahmp Smith D		
199	INDIVIDUAL STUDY	01.0 to 10.0 Cr
Prereq: Sponsor,prog supervis & divisn chairman approval		
7612	700 To be arranged	
200	PRIMARY FLIGHT THEO	02.0 Cr
7613 201 12.10-01.10 M W F Flight 17 Ketring J		
7614 202 04.00-05.00 M W F Flight 17 Ketring J		
201	FLIGHT-PRIMARY	02.0 Cr
7615 201 To be arranged Ketring J		
202	FLT-BASIC,INT THEOR	02.0 Cr
7616 201 04.00-05.30 M W Flight 17 Ketring J		
203	FLIGHT-BASIC	01.0 Cr
7617 201 To be arranged Ketring J		
204	FLIGHT-INTERMEDIATE	01.0 Cr
7618 201 To be arranged Ketring J		
205	FLIGHT-INSTRUM THEO	02.0 Cr
7619 201 04.00-05.30 T Th Flight 17 Ketring J		
206	FLT-INSTRUM & ADVAN	02.0 Cr
7620 201 To be arranged Ketring J		
207	FLT-MULTI-ENG OPER	01.0 Cr
7621 201 To be arranged Ketring J		
210A	JOB ORIENT & ANALY	02.0 Cr
7622 850 To be arranged Rahmp Smith D		
215A	DRAFTING GRAPHICS	03.0 Cr
Prereq: Concurrent enrollment in ID 231		
7623	201 12.10-04.10 M W F Tech A 209	

299	INDIVIDUAL STUDY	01.0 to 16.0 Cr
Prereq: Sponsor,prog superv & division chairman approval		
7624	700 To be arranged	
300	FLT-INSTR(AIRPLANE)	02.0 Cr
7625 201 To be arranged Ketring J		
301	FLT-INS(AIRPLN-M-E)	01.0 Cr
7626 201 To be arranged Ketring J		
302	FLT-INS(AIRPLN-INS)	01.0 Cr
7627 201 To be arranged Ketring J		
319	OCCUPAT INTERNSHIP	01.0 to 15.0 Cr ²
7628 700 To be arranged		
320	WORK STUDY INTERNSP	01.0 to 10.0 Cr ²
7629 700 To be arranged		
350	TECH CAREER SUBJECT	01.0 to 32.0 Cr
Prereq: Consent of instructor		
7630	401 08.00-12.00 MTWThF L2 102 Dettman D	
Wkshp AUT:ADV Tune& Emission Con meets 6/20-7/1 2 Cr		
7631	402 08.00-12.00 MTWThF L2 102 Albert J	
Wkshp AUT: Automatic Trans meets 7/11-7/22 2 Cr		
7632	403 08.00-12.00 MTWThF L3 120 Delmastro E	
Voc ed B&W Photo meets 6/20-7/1 2 Cr instr consent req		
7633	404 08.00-12.00 MTWThF L3 120 White R	
Voc Ed Color Photo-meets 7/11-22 2 Cr,instr cons req		
7634	405 08.00-12.00 MTWThF M4 107 Traylor L	
TT: Numeric Cont, Elec Dischrg Mach.meet 6/20-7/1 2cr		
7635	700 To be arranged	
400	FLT-AIR TRANS PILOT	01.0 Cr
7636 201 To be arranged Ketring J		
Secretarial and Office Specialities (SCR)		
101A	TYPEWRITING	02.5 Cr
7637 201 08.40-09.40 T Cl 21		
To be arranged		
Additional meetings in skill center		
7638	202 11.00-12.00 T Pull 118	
To be arranged		
Additional meetings in skill center		
101B	TYPEWRITING	02.5 Cr
Prereq: 101a		
7639	201 08.40-09.40 T Cl 21	
To be arranged		
Additional meetings in skill center		
7640	202 11.00-12.00 T Pull 118	
To be arranged		
Additional meetings in skill center		
101C	TYPEWRITING	02.5 Cr
Prereq: 101b		
7641	201 11.00-12.00 T Cl 21	
To be arranged		
Additional meetings in skill center		
101D	TYPEWRITING	02.5 Cr
Prereq: 101c		
7642	201 11.00-12.00 T Cl 21	
To be arranged		
Additional meetings in skill center		
102A	GREGG SHORTHAND	02.5 Cr
7643 201 08.40-09.40 Th Pull 227		
To be arranged		
Additional meetings in skill center		
102B	GREGG SHORTHAND	02.5 Cr
Prereq: 102a		
7644	201 08.40-09.40 Th Ag 154	
To be arranged		
Additional meetings in skill center		
102C	GREGG SHORTHAND	02.5 Cr
Prereq: 102b		
7645	201 12.10-01.10 T Th Cl 21	
To be arranged		
Additional meetings in skill center		
102D	GREGG SHORTHAND	02.5 Cr
Prereq: 102c		
7646	201 12.10-01.10 T Th Cl 21	
To be arranged		
Additional meetings in skill center		

¹Elective Pass/Fail ²Mandatory Pass/Fail

104 INTRO-MACH TRNSCRIPT					03.5 Cr
7647	201	12.10-01.10	W F Cl	21	
To be arranged					
Additional meetings in skill center					
106 REPROGRAPHICS					01.0 Cr
7648	201	11.00-01.00	M Cl	17	
Additional meetings in skill center					
107 FILING					02.0 Cr
7649	201	11.00-12.00	W F Cl	17	
To be arranged					
109 CALCULATING MACHINE					03.0 Cr
7650	201	11.00-12.00	Th Cl	17	
To be arranged					
201 COOP SECRETAR EXPER					02.0 to 08.0 Cr
7651	201	12.10-01.10	M Pull	118	
Additional meetings in skill center					
208 APP LAW-TECH CAREER					03.0 Cr
7652	201	09.50-10.50	MTWThF 0721	109	
209 APPLIED LAW II					03.0 Cr
Prereq: 208 recommended					
7653	201	08.40-09.40	WThF Pull	229	
312 ADV LEG ACTUATION					03.0 Cr
7654	201	08.40-09.40	M WThF Cl	21	
		08.40-09.40	T 0721	110	
313 ADV MACH SHORTHAND					05.0 Cr
7655	201	09.50-10.50	MTWThF Pull	229	
To be arranged					
Additional meetings in skill center					
315 TESTIMONY & DEPOSIT					03.0 Cr
7656	201	11.00-12.00	M WThF Cl	21	
		11.00-12.00	T 0721	110	
316 LEGAL ETHICS					01.0 Cr
7657	201	09.50-10.40	M W Cl	21	
317 COOP CRT REPORT EXP					02.0 to 05.0 Cr
7658	201	To be arranged			

Social Welfare (SW)

375 SW AS A SOC INSTIT					03.0 Cr
7659	201	08.40-09.40	MTWThF	H Ec	106 Wesley R
383 INTRO INTERVIEWING					03.0 Cr
7660	201	09.50-10.50	MTWThF	H Ec	201 Walker P
396 READINGS IN SOC WEL					01.0 to 03.0 Cr
Prereq: Consent of instructor					
7661	700	To be arranged			
401 PROC-SW (CASEWORK)					04.0 Cr
Prereq: 375					
7662	201	08.40-09.40	M W F	H Ec	306 Brelje M
		08.40-10.50	T Th	H Ec	306
404 INTEGR METH SOC WRK					03.0 Cr
Prereq: 441, 442 or concurrently with 442					
7663	201	01.20-03.30	T Th	H Ec	202 Walker P
		01.20-02.20	F	H Ec	202
421 SEM-PROBS & ISSUES					03.0 Cr
Prereq: 401, 402, 441, 442 or concurrently with 442					
7664	201	09.50-10.50	MTWThF	H Ec	102 Wesley R
7665	840	To be arranged			Nigeri Wesley R
Above section meets June 10 - August 6					
441 SOC WORK-SEL AGENCY					07.5 Cr ²
Prereq: 401 & 402 & consent of instr					
7666	201	To be arranged			Brown & Oneill
442 ADV FIELD PRACTICUM					07.5 Cr ²
Prereq: 441 & consent of instructor					
7667	201	To be arranged			Brown & Oneill
496 INDEP RESEARCH - SW					01.0 to 06.0 Cr
Prereq: Consent of instructor					
7668	700	To be arranged			

Sociology (SOC)

301 PRINCIPLES OF SOC						04.0 Cr¹
Prereq: GSB 203						
7674	201	09.50-10.50	M W F	Faner 3412	Munch	
		09.50-12.00	T Th	Faner 3412		
302 CONTEMP SOC PROBS						04.0 Cr¹
Prereq: GSB 203						
7675	201	09.50-10.50	M W F	Wham 317	Brooks	
		09.50-12.00	T Th	Pull 316		
372 CRIMINOLOGY						04.0 Cr¹
Prereq: 301 or GSB 203						
7676	201	11.00-12.00	M W F	Faner 2463	Webb	
		07.30-09.40	T Th	Faner 3412		
396 READINGS IN SOC						01.0 to 03.0 Cr¹
7677	700	To be arranged				
396H HONORS READINGS-SOC						01.0 to 03.0 Cr¹
Prereq: Consent of department and instructor						
7678	700	To be arranged				
424 SOC MOVE, COLL BEHAV						04.0 Cr¹
Prereq: Two sociology courses or consent of instructor						
7679	201	01.20-02.20	M W F	Faner 1230	Mcglynn	
		12.10-02.20	T Th	Faner 1230	Mcglynn	
460 SOCIOLOGY OF MEDICINE						04.0 Cr¹
Prereq: Two sociology courses or consent of instructor						
7680	201	09.50-10.50	M W F	Allyn 103	Patterson E	
		09.50-12.00	T Th	Allyn 103		
473 JUVENILE DELINQ						04.0 Cr¹
Prereq: GSB 203 and SOC 302 or 372						
7681	201	08.40-09.40	M W F	Tech A 320	Ryan	
		08.40-10.50	T Th	Tech A 320		
Restrict to undergrads, Above sect crosslisted AJ 473						
498 INDEPENDENT RES						01.0 to 04.0 Cr¹
Prereq: Sr stand with 20hrs in SOC and consent of instr						
7682	700	To be arranged				
498H HONORS INDEPEND RES						01.0 to 04.0 Cr¹
Prereq: Cons of dept						
7683	700	To be arranged				
530 TOP SEM IN SOC						02.0 to 04.0 Cr
Prereq: Consent of instructor						
7684	201	01.20-04.50	M W	Faner 3412	Munch	
591 INDIVIDUAL RESEARCH						01.0 to 04.0 Cr
Prereq: Consent of instructor and dept chairman						
7685	700	To be arranged				
596 READINGS IN SOC						01.0 to 08.0 Cr
Prereq: Consent of instructor and dept chairman						
7686	700	To be arranged				
599 THESIS						01.0 to 06.0 Cr
Prereq: Consent of chairman						
7687	700	To be arranged				
600 DISSERTATION						01.0 to 16.0 Cr
Prereq: Consent of chairman						
7688	700	To be arranged				

Spanish (SPAN)

140A ELEMENTARY SPANISH					04.0 Cr¹
7689	201	08.40-09.40	MTWThF	Tech A 122 Wilkinson	
		09.50-10.50	T Th	Tech A 122	
140B ELEMENTARY SPANISH					04.0 Cr¹
Prereq: 140a					
7690	201	11.00-12.00	MTWThF	Faner 2079 Hartman	
		12.10-01.10	T Th	Faner 2079 Ulner	
220 INTER SPAN CONVERS					02.0 Cr¹
Prereq: 140b, 175, or two years high school spanish					
7691	201	08.40-09.40	M W F	Faner 3412 McBride	
305 ADV CONVERSATION					02.0 Cr¹
Prereq: 201b or 275, and 220b					
7692	201	12.10-01.10	M W F	Faner 2083 Meinhardt	
306 INTERMED READINGS					02.0 Cr¹
Prereq: 201b or 275 or equivalent					
7693	201	09.50-10.50	M W F	Faner 2010 Meinhardt	
310A SURVEY-SPANISH LIT					03.0 Cr¹
Prereq: 306					
7694	201	11.00-12.00	MTWThF	Faner 2083 McBride	

371 LATIN AMER CIVIL02.0 Cr¹

Prereq: 201b or 275 or equivalent

7695 840 To be arranged Xalapa Ulnor A
Above section meets June 20 - August 10

375 STU IN SPAIN/LAT AM02.0 Cr¹

Prereq: One year of college Spanish or the equivalent

7696 840 To be arranged Xalapa Ulnor A
Above section meets June 20 - August 10

415 LING STRUCTURE SPAN03.0 Cr¹

7697 201 02.30-03.30 MTWThF Faner 2083 Hartman

486 SPAN AMERICAN DRAMA02.0 Cr¹

7698 201 08.40-09.40 M W F Faner 2008 Woodbridge

490 READINGS IN SPANISH01.0 to 03.0 Cr¹

Prereq: Consent of department

7699 700 To be arranged
7700 840 To be arranged Mexico
Above section meets June 20 - Aug 10

599 THESIS

01.0 to 06.0 Cr

7701 700 To be arranged

Special Education (SPE)**400 INTRO TO SPEC EDUC**

03.0 Cr

7702 401 08.00-12.30 MTWThF Pull 34 Ewing N
Class meets June 13-24

401 PROB&CHAR-BEHAV DIS

03.0 Cr

Prereq: 400, or concurrent enrl, or consent of dept chairman

7703 401 08.00-12.30 MTWThF Pull 34 Juul K
Class meets June 27- July 8

404 PROB&CHAR-L.D.CHILD

03.0 Cr

Prereq: 400, or concurrent enrl, or consent of dept chairman

7704 401 08.00-12.30 MTWThF Pull 34 Hisama
Class meets July 11-22

405 ED PRSCH HND CP CHLD

03.0 Cr

Prereq: 400, or concurrent enrl, or consent of dept chairman

7705 401 08.00-12.30 MTWThF Tech A 120 Teska
Class meets July 11-22

412 AS&REMEDI PRSCH HD CP

03.0 Cr

Prereq: 400 and 405

7706 401 01.00-05.30 MTWThF Pull 229 Stoneburner
Class meets July 11-22

417 TCH BD CHILD-EL LEV

02.0 Cr

Prereq: 411; concurrent enrollment in EDUC 312 and EDUC 400

7707 401 01.20-04.40 MTWThF Wham 302 Juul K
Meets 6/13-24. Concur enrol-490 sect 709 for 1 cr req.

419 TCH LD CHILD-EL LEV

02.0 Cr

Prereq: 411; concurrent enrollment in EDUC 312 and EDUC 400

7708 401 01.20-04.40 MTWThF Wham 302 Hisama
Above section meets 7/25-8/5

425 HOME-SCH COORD-SP E

02.0 Cr

Prereq: 400 or consent of department chairman

7709 401 01.00-04.00 MTWThF Pull 34
Class meets July 11-22

430 HANDICAP ADOL TO 21

02.0 Cr

Prereq: 400 and one of 401, 402, 403, or 404

7710 401 01.00-04.00 MTWThF Pull 34 Ewing N
Meets 6/27-7/8. Concur enrol-490 sect 705 for 1 cr req

490 READINGS IN SP EDUC

01.0 to 05.0 Cr

Prereq: 400 and consent of department chairman

7711 700 To be arranged

500 SP ED RES PROBLEMS

03.0 Cr

Prereq: Consent of instructor

7712 501 01.00-05.30 MTWThF Pull 229 Stoneburner
Class meets June 27 - July 8

502 SP ED RES PAPER

02.0 Cr

Prereq: 500, consent of instructor

7713 700 To be arranged

511A ASSESSM & REMEDI PLN

03.0 Cr

Prereq: 411

7714 201 08.40-09.40 MTWThF Wham 112 Brecht

517 ATYP CHI & SOC AGEN

02.0 Cr

Prereq: 400 and consent

7715 401 01.00-04.00 MTWThF Pull 34
Class meets July 25 - Aug 5

518 WORKSHOP IN SP ED

02.0 to 06.0 Cr

Prereq: 400 and consent of instructor and dept chairman

7716 401 08.40-01.10 MTWThF Pull 41 Morgan H

Above section meets 6/27-7/8

7717 402 08.40-01.10 MTWThF Pull 41 Casey J

Above section meets 6/13-6/24

7718 403 08.40-01.10 MTWThF Ag 222

Above section meets June 13-24

7719 404 01.20-05.50 MTWThF Pull 41 Morgan H

Above section meets 6/13-6/24

580 MASTERS SEMINAR

03.0 Cr

Prereq: 400, consent of instructor and department chairman

7720 401 08.00-12.30 MTWThF Tech A 120 Teska

Class meets July 25 - Aug 5

591 INDEP INVESTIGATION

02.0 to 05.0 Cr

Prereq: Consent of instructor

7721 700 To be arranged

594 PRACTICUM IN SP ED

01.0 to 06.0 Cr

Prereq: Consent of instr & department chairman

7722 700 To be arranged

600 DISSERTATION

01.0 to 16.0 Cr

Prereq: Consent of chairman

7723 700 To be arranged

Speech (SPCH)**221 PUBLIC COMM II**

03.0 Cr

Prereq: GSD 153 or consent of instr

7741 201 11.00-12.00 MTWThF Comm 1017 Hibbs P

261 DISCUSS & CONFERENC

03.0 Cr

7742 201 08.40-09.40 MTWThF Comm 1017 Potter D

262 INTERPERS COMM II

03.0 Cr

Prereq: GSD 152 or consent of instr

7743 201 12.10-01.10 MTWThF Comm 1017 Smith W

326 PERSUASION

03.0 Cr

7744 201 09.50-10.50 MTWThF Comm 1017 Bytwerk R

362 COMM & SOC PROCESS

03.0 Cr

7745 301 01.20-03.20 MTWThF Comm 1017 Kleinau M D

Above section meets 6/13-7/8

370 ORAL INTERP II

03.0 Cr

Prereq: GSC 200 or consent of instr

7746 201 08.40-09.40 MTWThF Comm 1020 Fish R

381 PR POLICY & PRACTIC

03.0 Cr

Prereq: Junior standing

7747 201 11.00-01.10 T Th Lawson 131 Macdonald

390 APPLIED COMMUNICAT

01.0 to 06.0 Cr

Prereq: Consent of instructor and departmental adviser

7748 201 To be arranged

444 LANG OF YOUNG CHILD

03.0 Cr

7749 201 01.20-03.00 M W F Lawson 201 Higginbotham D

451 POLITICAL COMM

03.0 Cr

Prereq: 358 or consent of the instr

7750 301 03.40-05.40 MTWThF Comm 1022 Sanders

Above section meets 7/11-8/3

480 STU IN ORGANIZ COMM

03.0 Cr

7751 301 01.20-03.20 MTWThF Comm 1017 Mccaulliff M

Above section meets 7/11-8/3

490A PRACTICUM-P.R.

01.0 to 06.0 Cr

Prereq: Consent of instructor & dept advisor

7752 201 To be arranged Macdonald

490B PRACT-COMM STUDIES

01.0 to 06.0 Cr

Prereq: Consent of instructor & dept advisor

7753 201 To be arranged

490C PRAC-INTERPERS COMM

01.0 to 06.0 Cr

Prereq: Consent of instructor & dept advisor

7754 201 To be arranged

490D PRAC-ORAL INTRP LIT

01.0 to 06.0 Cr

Prereq: Consent of instructor & dept advisor

7755 201 To be arranged

490E PRACT-FORENSIC ACT

01.0 to 06.0 Cr

Prereq: Consent of instructor & dept advisor

7756 201 To be arranged Kleinau M D

490F PRAC-CREATIVE DRAMA	01.0 to 06.0 Cr
Prereq: Consent of instructor & dept advisor	
7757 201 To be arranged	McHughes J
490G PRAC-POLITICAL COMM	01.0 to 06.0 Cr
Prereq: Consent of instructor & dept advisor	
7758 201 To be arranged	Sanders K
490H PRAC-ORGANIZAT COMM	01.0 to 06.0 Cr
Prereq: Consent of instructor & dept advisor	
7759 201 To be arranged	Mccaulliff M
490I PRACT-LANG BEHAVIOR	01.0 to 06.0 Cr
Prereq: Consent of instructor & dept advisor	
7760 201 To be arranged	Higginbotham D
490J PRAC-INSTRUCT COMM	01.0 to 06.0 Cr
Prereq: Consent of instructor & dept advisor	
7761 201 To be arranged	Meglone E
491 INDEP STU-COMMUNIC	01.0 to 03.0 Cr
Prereq: 12 hours of speech, consent of instr & dept advisor	
7762 700 To be arranged	
491 is for undergraduate credit only.	
492 WORKSHOP-ORAL INTER	03.0 Cr
7763 201 To be arranged	Kleinau M L
493 SPECIAL TOPICS-COMM	03.0 Cr
7764 201 09.50-10.50 MTWThF Comm 1022 Smith W	
Communication and Passivity	
503 NON-QUAN RES METH	03.0 Cr
7765 201 08.40-09.40 MTWThF Comm 2012 Pace T	
540 SEMINAR-LANG BEHAV	03.0 Cr
Prereq: 440,441, or 530	
7766 201 01.20-03.40 T Th Comm 2012 Higginbotham D	
561 STU IN SML GRP COMM	03.0 Cr
7767 201 11.00-12.00 MTWThF Comm 2008 Lanigan R	
572 CRIT PERSPEC-INTERP	03.0 Cr
Prereq: 9 hrs of interp or consent of instructor	
7768 201 01.20-03.00 M W F Comm 1020 McHughes J	
593 RES PROB IN COMM	01.0 to 03.0 Cr
Prereq: Consent of instructor and departmental adviser	
7769 700 To be arranged	
599 THESIS	01.0 to 06.0 Cr
7770 700 To be arranged	
600 DISSERTATION	01.0 to 16.0 Cr
7771 700 To be arranged	

Speech Pathology and Audiology (SP&A)

100 SPCH CLINIC-THERAPY	00.0 to 01.0 Cr
Prereq: Consent of instructor	
7772 201 To be arranged	Anderson J
302 PHONO DEV & DISORD	03.0 Cr
Prereq: 200 or concurrent enrollment	
7773 201 09.50-10.50 MTWThF Comm 1007 Blache S	
318 PARAMETERS OF VOICE	03.0 Cr
Prereq: 205	
7774 201 11.00-12.00 MTWThF Comm 1006 Brackett I P	
414 ANAT,PHSL-SP & HEAR	03.0 Cr
7775 201 07.30-08.30 MTWThF LS II 149B Kaplan H	
419 COMM PROB H OF HEAR	03.0 Cr
Prereq: 316 or consent of instructor	
7776 301 08.40-10.50 MTWThF Comm 1006 Moncur J	
Above section meets 6/13-7/8	
420 BASIC AUDIOMET EVAL	03.0 Cr
Prereq: 316	
7777 201 01.20-02.20 MTWThF Comm 1007 Franzen R	
431 BIOFEEDBACK COMM	01.0 to 03.0 Cr
7778 201 02.50-03.50 W Comm 1007 Hoskiko M	
To be arranged	
491 INDIVIDUAL STUDY	01.0 to 02.0 Cr
Prereq: Consent of the chairman	
7779 700 To be arranged	
494 CLN PRAC-PHON DISOR	01.0 to 02.0 Cr
Prereq: 302	
7780 201 01.20-02.20 M W F Comm 1007	

7781 202 02.30-03.30 M W F Comm 1007	
7782 203 03.40-04.40 M W F Comm 1007	
495 CLN PRAC-LANG DISOR	01.0 to 02.0 Cr
Prereq: 303	
7783 201 To be arranged	Pace S
496 CLN PRAC-HEAR DISOR	01.0 to 02.0 Cr
Prereq: 316, 419, or consent of instructor	
7784 201 12.10-01.10 M Comm 1006	
497 CLIN PRAC-HEAR DIAG	01.0 to 02.0 Cr
Prereq: 316,420	
7785 201 To be arranged	
500 RES DES IN SP&A	03.0 Cr
7786 201 01.20-02.20 MTWThF Comm 1006 Brutton G	
503 LAB INSTRUM IN SP&A	03.0 Cr
Prereq: 203 or consent of instructor	
7787 301 07.30-09.40 MTWThF Comm 1007 Hoshiko M	
Above section meets 7/11-8/3	
505 PHON ACQUIS IN CHLD	03.0 Cr
Prereq: Consent of instructor	
7788 201 11.00-12.00 MTWThF Comm 1007 Blache S	
507 MOD TECH-SYNT IMPAR	03.0 Cr
Prereq: 303	
7789 201 02.30-03.30 MTWThF Comm 1006	
512 VOICE DISORDERS	03.0 Cr
Prereq: 318 or equivalent	
7790 201 01.20-03.30 T Comm 1018 Brackett I P	
01.20-04.40 Th Comm 1018	
548 STUT-BEH THEO & RES	03.0 Cr
Prereq: 319 or equivalent	
7791 201 02.30-04.40 T Th Comm 1009	
550 SEMINAR-SP&A	03.0 Cr
Prereq: Consent of chairman	
7792 201 To be arranged	
590 READINGS IN SP&A	01.0 to 02.0 Cr
Prereq: Consent of chairman	
7793 700 To be arranged	
593 RES PROBS IN SP&A	01.0 to 03.0 Cr
Prereq: Consent of chairman	
7794 700 To be arranged	
594 CLN PRAC-VOIC DISOR	01.0 to 02.0 Cr
Prereq: 318 or equivalent	
7795 201 To be arranged	Brackett I P
595 CLN PRC-FLUEN DISOR	01.0 to 02.0 Cr
Prereq: 510	
7796 201 To be arranged	Brutton G
598 INTERNSHIP IN SP&A	01.0 to 03.0 Cr
Prereq: Consent of chairman	
7797 700 To be arranged	
599 THESIS	01.0 to 06.0 Cr
7798 700 To be arranged	
600 DISSERTATION	01.0 to 16.0 Cr
7799 700 To be arranged	

Theater (THEA)

207 THEATRICAL DESIGN	02.0 Cr¹
7801 201 11.00-12.00 M W F Comm 2012 Payne D	
211A STAGE TECH-SCENERY	02.0 Cr
7802 201 02.30-03.30 MTWThF Comm 1057 Reynolds	
211B STAGE TECH-LIGHTING	02.0 Cr
7803 201 03.40-04.40 MTWThF Comm 1057 Reynolds H	
211C STAGE TECH-COSTUME	02.0 Cr
7804 201 08.40-09.40 MTWThF Comm 2041 Stewart-Harrison E	
217 ACTING	02.0 Cr¹
7805 201 11.00-01.10 T Th Comm 1037 Proctor J	
7806 202 02.30-03.30 M W F Comm 1037 Stewart-Harrison E	
240A BEG TECH-CONT DANCE	02.0 Cr
7807 301 01.20-03.30 MTWThF Pull 42 Idoine S	
Above section meets 6/13-7/15	
258 WORK EXPERIENCE	01.0 to 10.0 Cr²
Prereq: Departmental and advisor approval	
7808 201 To be arranged	Talarowski J

308A	DRAM ACT-STAGECRAFT	02.0 Cr
Prereq: 211a		
7809	201 To be arranged	Reynolds H
308B	DRAM ACT-LIGHTING	02.0 Cr
Prereq: 211b		
7810	201 To be arranged	Reynolds H
308C	DRAM ACT-COSTUMING	02.0 Cr
Prereq: 211c		
7811	201 To be arranged	
308D	DRAM ACT-ACTING	01.0 to 10.0 Cr
Prereq: 217		
7812	201 To be arranged	
308E	DRAM ACT-MAKE-UP	02.0 Cr
Prereq: 305		
7813	201 To be arranged	
308F	DRAM ACT-BUSINESS	02.0 Cr
Prereq: 404		
7814	201 To be arranged	
308G	DRAM ACT-DIRECTING	01.0 to 10.0 Cr
Prereq: 402a		
7815	201 To be arranged	
308H	DRAM ACT-DANCE	02.0 Cr
7816	201 To be arranged	
322	PRACTICUM IN THEA	01.0 to 10.0 Cr
7817	201 To be arranged	Talarowski J
390	READING IN THEA ART	02.0 Cr
Prereq: Theater major & consent of advisor & instructor		
7818	700 To be arranged	
391	INDEP STU-THEA ARTS	02.0 Cr
Prereq: Theater major & consent of advisor & instructor		
7819	700 To be arranged	
402A	PLAY DIRECTING	03.0 Cr
7820	201 12.10-01.10 MTWThF Comm 1045	Proctor J
411A	PLAYWRITING-ONE ACT	03.0 Cr
Prereq: Ugrad thea, spch maj-311. Nonmaj, grad-1 crse dram lit		
7821	201 02.30-04.40 W F Comm 2012	Moe C
444	CONTEMP DANCE WKSHP	01.0 to 06.0 Cr
7822	401 01.20-05.20 MTWThF Pull 42	Idoine S
Above section meets 7/18-8/3		
489	THEATER-TV WORKSHOP	03.0 to 06.0 Cr
7823	201 08.40-12.00 MTWThF Ag 102A	Cannon J
	01.20-05.00 MTWThF H Ec 140B	Cannon J
503B	PROB-STG LITE & SND	02.0 Cr
Prereq: Consent of dept		
7824	201 02.30-03.30 M W F Comm 2042	Reynolds
511	PLAYWRITING WORKSHp	01.0 Cr
Prereq: 411a & b		
7825	201 02.30-04.40 M Faner 2406	Moe C
519	THEATER PRACTICUM	01.0 to 10.0 Cr
7826	201 To be arranged	Talarowski J
526D	HISTORY & THEORY	02.0 Cr
Prereq: Consent of department		
7827	201 02.30-04.40 T Th Comm 2040	Stewart-Harrison E
530	RESEARCH PROBS-THEA	01.0 to 09.0 Cr
7828	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
7829	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
7830	700 To be arranged	

Thermal and Environmental Engineering (TEE)

404	THERM SYS OPTIMIZAT	03.0 Cr
Prereq: Engr 302, 361		
7831	875 To be arranged	M.I.F.
Above section meets June 13 - Aug 5.		
492	SPEC PROB IN ENGR	01.0 to 05.0 Cr
Prereq: Senior standing and consent of instructor		
7832	700 To be arranged	

500	ADV ENGR THERMODYN	03.0 Cr
Prereq: Engr 300		
7833	201 To be arranged	
592	SPEC INVESTIGA-ENGR	01.0 to 04.0 Cr
Prereq: Consent of instructor & dept chairman		
7834	700 To be arranged	
7835	875 To be arranged	M.I.F. Chen J
Above section meets June 13 - Aug 5.		
599	THESIS	01.0 to 06.0 Cr
7836	700 To be arranged	
7837	875 To be arranged	M.I.F.

Tool and Manufacturing Technology (TT)

180	WELDING I	03.0 Cr
7838	201 07.30-09.30 MTWThF M4 108	
Restricted to consent of chairman		
181	WELDING II	03.0 Cr
7839	201 07.30-09.30 MTWThF M4 108	
Restricted to consent of chairman		
182	WELDING III	03.0 Cr
Prereq: 181 or consent of instr		
7840	201 07.30-09.30 MTWThF M4 108	
Restricted to consent of chairman		
310	CERTIF WELD TRAIN	06.0 to 24.0 Cr
Prereq: Completion formal welding prog or equiv work exper		
7841	201 07.30-09.30 MTWThF M4 108	
Restricted to consent of chairman		

University (UNIV)

388	INTERNATIONAL STU	01.0 to 04.0 Cr
Prereq: Major department or program approval		
7842	840 To be arranged	Xalapa Ulner A
Above section meets June 20 - August 10		

Vocational Education Studies (VES)

258	OCCUPAT EXPERIENCE	02.0 to 30.0 Cr
Prereq: 12 hours of C or better at SIU		
7843	700 To be arranged	
259	OCCUPATION SUBJECTS	02.0 to 48.0 Cr
Prereq: 12 hours of C or better at SIU		
7844	700 To be arranged	
395	OCCUPAT INTERNSHIP	02.0 to 24.0 Cr
Prereq: Consent of coordinator		
7845	700 To be arranged	
419	OCCUP TCHG INTERN	02.0 to 12.0 Cr
Prereq: 395-10 hours, 490-3 hours		
7846	700 To be arranged	
425	INTRO-COOP VOC EDUC	03.0 Cr
7847	501 08.00-05.00 MTWThF Tech D 130	Gooch B
To be arranged		
Above section meets June 6-10. Addit. hrs TBA.		
426	POST-SEC COOP VO ED	03.0 Cr
7848	201 04.00-06.30 M W Tech D 130	Gooch B
485	PRIN,PHIL-VO TEC ED	03.0 Cr
7849	201 01.20-03.50 M W Tech A 122	Buila
7850	202 06.40-09.10 pm T Th Tech A 122	Gooch
490	READINGS	02.0 to 04.0 Cr
Prereq: Consent of instructor		
7851	700 To be arranged	
492	SPECIAL PROBLEMS	02.0 to 05.0 Cr
Prereq: Consent of instructor and coordinator		
7852	700 To be arranged	
500	RES-VOC,PRE VOC ED	03.0 Cr
7853	201 04.00-06.30 T Th Tech A 208	Erickson
501	LEGIS-ORG,APPL VOED	03.0 Cr
7854	201 06.40-09.10 pm M W Tech A 410	Huck
502	EVAL VOC,PRE-VOC PR	03.0 Cr
7855	201 01.20-03.50 T Th Tech A 208	Stadt
510	PLANNING FACILITIES	03.0 Cr
7856	201 01.20-03.50 M W Tech D 131	Rosenbarger

¹Elective Pass/Fail ²Mandatory Pass/Fail

519	INTERNSHIP	01.0 to 16.0 Cr
7857	700 To be arranged	
525	COOP VOC-TECH EDUC	03.0 Cr
	Prereq: 425 or 426, or previous professional experience	
7858	201 01.20-03.50 T Th H Ec 133 Fults	
541	OCCUPATIONAL INFO	03.0 Cr
7859	201 06.40-09.10 pm T Th Tech A 208 Ramp	
560	NEW DEVELOPMENTS	01.0 to 09.0 Cr
7860	201 08.40-11.10 MTWTh Nkrs A 278 Bortz	
573	SEM: RESEARCH	01.0 to 04.0 Cr
	Prereq: Consent of instructor	
7861	201 01.20-03.50 M W Tech A 208 Bailey	
590	READ-VOC,PRE-VOC ED	01.0 to 04.0 Cr
	Prereq: Consent of instructor	
7862	700 To be arranged	
592	SPECIAL INVESTIGAT	02.0 to 06.0 Cr
	Prereq: Consent of instructor	
7863	700 To be arranged	
599	THESIS	02.0 to 06.0 Cr
7864	700 To be arranged	
600	DISSERTATION	01.0 to 36.0 Cr
7865	700 To be arranged	

Zoology (ZOO)

118	INTRODUCTORY ZOO	04.0 Cr
7867	201 09.50-10.50 MTWThF LS II 450	
	12.10-02.20 T Th LS II 320	
7868	202 09.50-10.50 MTWThF LS II 450	
	02.30-04.40 T Th LS II 320	
220B	DIV ANI LIFE-VERT	04.0 Cr
	Prereq: Principle interest in biology	
7869	201 07.30-08.30 M W F Wham 312	
	01.20-04.20 M W LS II 325	
258	WORK EXPERIENCE	02.0 to 04.0 Cr ²
7870	700 To be arranged	
300	VERT EMBRYOLOGY	04.0 Cr
	Prereq: 120b	
7871	201 09.50-10.50 M W F Tech A 420	
	01.20-04.20 T Th LS II 303	
393	INDIVIDUAL RESEARCH	01.0 to 03.0 Cr
	Prereq: 3.0 GPA, sr standing, & approv by dept or faculty	
7872	700 To be arranged	
402	NAT HIST INVERT	03.0 Cr
7873	201 09.50-10.40 T Th Tech A 420	
	01.20-04.20 M W LS II 304	
407	PARASITOLOGY	04.0 Cr
	Prereq: 120a	
7874	201 07.30-08.30 M W F LS II 450	
	01.20-04.20 M W LS II 369	
461	MAMMALOGY	03.0 Cr
	Prereq: 120b	
7875	201 11.00-01.50 T Th LS II 450	
	01.20-04.20 T Th LS II 310	
471	ENTOMOLOGY	03.0 Cr
	Prereq: 220a	
7876	201 08.40-09.40 M W LS II 430	
	01.20-04.20 T Th LS II 304	
496	ZOO FIELD STUDIES	03.0 Cr
	Prereq: Consent of department	
7877	850 To be arranged W/U.S.	
	Above section meets May 14 - June 12	
540	FAC IN ANIM REPROD	03.0 Cr
	Prereq: Consent of instructor	
7878	201 08.40-09.40 MTWThF Faner 2204	
582	GRADUATE ZOO SEM	01.0 Cr
	Prereq: Consent of instructor and dept	
7879	201 To be arranged	
593	INDIVIDUAL RESEARCH	01.0 to 08.0 Cr
7880	700 To be arranged	
599	RESEARCH AND THESIS	01.0 to 08.0 Cr
7881	700 To be arranged	

Appendix:

Instructors for Independent Study Courses

The following is a reference list for use in registering into classes which are entered in the schedule with a section number of "700." Refer to the paragraph entitled "Independent Study Courses" in chapter 1 of this book for an explanation of the registration procedure. In nearly every instance, written permission of the instructor and/or the department chairman is required prior to registration. Students desiring to work in a department or program under a faculty member not listed below in that department or program, may obtain the instructor number from the department.

Accountancy Barron 707 Burger 713 Burns 715 Eriksen 712 Glick 704 Neal 717 Nestman 714 Schmidlein 701 Sternner 716 Swick 703 Tucker 706 Woelfel 702 Wright 710	Agricultural Industries Cusumano 713 Doerr 703 Herr 707 Lybecker 711 Paterson 709 Solverson 710 Stitt 702 Welton 706 Wills 708 Wolff 704 Wood 701	Beene 725 Bernstein 706 Boysen 720 Deller 726 Feldman 708 Fink 722 Greenfield 704 Johnson 714 Kington 719 Link 712 Lintault 705 Littlefield 702 Loyd 727 Mavigliano 710 Onken 709 Paulson 711 Sullivan, M. 701 Sullivan, J. 703 Walsh, R. 718 Walsh, T. 723 Wood 715	Lemser 712 Rahe 714 Chemistry Arnold 701 Bailey 725 Bartolotti 727 BeMiller 702 Beyler 703 Bolen 704 Caskey 705 Cox 706 Emptage 708 Guyon 710 Hadler 711 Hadley 712 Hall 713 Hargrave 714 Hinckley 715 Koster 716 Myers 717 Schmit 726 Schmulbach 718 Slocum 719 Smith 720 Sung 721 Trimble 722 Tyrrell 723 Wotiz 724	Curriculum, Instruction and Media Aikman 701 Alden 702 Bedient 703 Boykin 704 Buser, R. 737 Butts 705 Casey 706 Cox 707 Dale 708 Dixon 709 Grant 710 Hill 711 Hungerford 712 Jacko 714 Jackson, J. 715 Jackson, M. 716 Jurgemeyer 717 Karmos 718 Klasek 719 Lamb 720 Lindberg 721 Long 722 Matthias 723 Morpurgo 724 Paige 713 Quisenberry, J. 725 Quisenberry, N. 736 Rubba 726 Seiferth 727 Shepherd 728 Sloan 729 Solliday 730 Spigle 731 Stallard 732 Steinruck 733 Tomera 734 Winsor 735
Administration of Justice Anderson 711 Barry 716 Bascom 719 Bennett 718 Coughlin 706 Dreher 708 Eynon 701 Farrell, R. 714 Johnson 707 Kiefer 703 Klyman 717 Matthews 710 Rich 704 Wilson, K. 713 Wilson, N. 709	Animal Industries Goodman 701 Hausler 702 Hinnners 703 Hodson 704 Kammlade 705 Koehn 712 Kroening 706 Lee 707 Males 708 McCoy 711 Olson 709 Strack 710	Black American Studies Charles 701 Cox 702 Jones 705 Robinson 706 Sturgis 707	Botany Ashby 711 Bissing 727 Matten 712 Mohlenbrock 713 Pappelis 715 Richardson 716 Robertson 717 Schmid 718 Stotler, B. 719 Stotler, R. 720 Sundberg 721 Tindall 722 Ugent 723 Voigt 725 Yopp 726	Child and Family Eddleman 702 Gulley 709 Jones 708 Kraft 706 Lacey 710 Ouedraogo 704 Ponton 703 Spees 707 Zunich 701
Administrative Sciences Bateman 705 Bussom 720 Fohr 730 Hunt 735 Jauch 738 Larson 740 Osborn 760 Reeves 763 Vicars 770 Westberg 742 Wilson 775	Anthropology Bender 712 Cook 707 Dark 714 Gumerman 701 Handler 705 Kelley 711 MacLachlan 715 Maring, E. 709 Maring, J. 702 Muller 704 Plog 718 Rafferty 719 Rands 708 Riley 716 Art Abrahamson 713 Addington 717	Business Administration Adams 701 Andersen 702 Barron 703 Bateman 704 Burger 707 Bussom 708 Darling 742 Domermuth 710 Eckrich 739 Elsaid 711 Eriksen 712 Fohr 713 Gehr 714 Glick 740 Hindersman 715 Hunt 716 Jauch 741 Larson 717 Moore 719 Osborn 721 Perry 722 Reeves 743 Schmidlein 723 Sprecher 726 Swick 727 Tucker 728 Tyler 729 Vaughn 730 Vicars 731 Waters 732 Westberg 733 Wilson 734 Woelfel 735 Wright 736 Business Education Anderson 710	Cinema and Photography Abter 750 Blumenberg 701 Bukalski 709 Cocking 714 Covell 710 Fagin 711 Gilmore 702 Horrell 704 Mercer 705 Paine 706 Petrillo 712 Swedlund 707 Zirpola 708 Clothing and Textiles Berry 750 Friend 751 Higgerson 752 Padgett 753 Ridley 754 St. John 756 Community Development Alliband 712 Bhattacharyya 709 Denise 701 Ehrlich 715 Hanson 702 Needham 714 Poston 704 Thomas 711 Wakeley 705 Computer Science Carr 702 Danhof 707 Guha 703 Mark 701 Smith 706 Wright 705	Design Archer 702 Busch 704 Ellner 705 Grosowsky 707 Kachel 708 Kula 711 Newman 709 Perk 710 Pratt, D. 712 Roan 713 Schoen 714 Economics Adams 721 Beazley 702 Bohi 723 Edelman 726 Ellis 727 Foran 728 Ford 729 Fryman 730 Hand 731 Herr 707 Hickman 732 Hunsaker 712 Layer 733 Lyon 734 Messerschmidt, D. 737 Nam, C. 747 Pulsipher 738 Russell 739 Shields, M. 746 Stalon 740 Stowe 741 Tracy 742 Trescott 749 Vogel 743 Weigand 744 Wills 708 Educational Leadership Bach 701 Buser 716

Dennis 702
Duff 715
Eaton 703
Kaiser 704
Matthias 717
McKenzie 706
Miller 714
Moore 707
Parker 708
Ripple 709
Sasse 710
Shelton 711
Stuck 713
Verduin 712.

Electrical Sciences and Systems Engineering

Ashworth 708
Dodd 701
Feiste 702
Grismore 703
Ho 709
Komaroff 710
McCalla 704
Rawlings 706
Smith 707
Wolske 711

Engineering Mechanics and Materials

Al-Rubayi 710
Brower 725
Davis 720
Eddingfield 730
Evers 740
Nowacki 760
Orthwein 770
Sami 780

English

Appleby 729
Benziger 706
Boyle 731
Brown 717
Cassidy 720
Cohn 735
Donow 707
Friend 709
Goodin 727
Griffin 703
Harper 704
Hatton 730
Hillegas 733
Howell 723
Hurley 714
Lawson 725
Little 732
Moore 702
Morrill 708
Moss 722
Partlow 701
Penner 736
Peterson 712
Piper 716
Rainbow 715
Raizis 705
Rudnick 713
Schonhorn 711
Schultz 724
Simeone 726
Stibitz 718
Taylor 728
Vieth 721
Webb 719

Family Economics and Management

Brooks 701
Craig 702
Edmondson 703
Kearn 710
Lougeay 777
Myers 709
Zunich 708

Finance

Elsaid 703
Gehr 702
Henkel 706
Sprecher 708
Tyler 705
Vaughn 707
Waters 704

Food and Nutrition

Becker 703
Drayton 704
Endres 706
Konishi 701
Osborn 705
Payne 702

Foreign Languages and Literatures

Aydt 701
French 704
Gobert 705
Hartman 706
Keller 724
Kilker 708
Kupcek 709
Liedloff 710
McBride, C. 711
Meinhardt 712
O'Brien 713
O'Meara 714
Orechwa 715
Southworth 716
Speck 717
Tai 718
Timpe 719
Uher 720
Wilkinson 722
Woodbridge 723

Forestry

Aubertin 717
Budelsky 707
Burde 715
Chilman 702
Fralish 711
Gaffney 713
Kung 712
McCurdy 705
Myers 701
Roth 704
Spalt 716
Weaver 706
Yambert 709

Geography

Arey 701
Baumann 703
Beazley 702
Christensen 705
Dworkin 712
Horsley 706
Irwin 707
Jones 708
Lieber 711
Sharpe 709

Geology

Cameron, A. 717
Cole, R. 716
Dutcher 701
Fang 706
Frank 705
Fraunfelter 713
Harris 709
Hood 710
Mansfield, C. 714
Ritter 703
Robinson 704
Sexton, J. 715
Utgaard 711
Zimmerman, J. 702

Guidance and Educational Psychology

Altekruse 702
Amble 705
Bardo 704
Beggs 725
Bradley 701
Cody 710
Deichmann 703
Deweese 723
Elmore 726
Endsley 722
Evans 727
Karmos 719
Kelly 707
Leitner 718
Lewis 708
Meek 709
Miller 728
Mouw 716
Pohlmann 713
Ramp 715
Rector 720
Snowman 724
White 714
Wickersham 717
Woehlke 711
Yates 712

Health Education

Aaron 706
Bates 716
Boydston 709
Brown 713
Casey 702
Grissom 708
Harris 704
Henderson 715
LeFevre 703
Lindauer 705
Moglia 714
Ritzel 707
Russell 712
Sliepevich 710
Vaughan 711

Higher Education

Adams 701
Casebeer 703
Clark 704
Graham 711
Hawley 706
Jung 707
Keene 708
King 709
Morrill 716
Pratt 710
Spees 712
Swinburne 713
Tolle 714
Zimmerman 715

History

Allen 701
Ammon 705
Barton 710
Batinski 715
Brehm 720
Carrott 725
Clifford 730
Conrad 735
Detwiler 740
Dotson 743
Fladeland 745
Gold 750
McFarlin 755
Murphy 760
O'Day 765
Shelby 770
Simon 775
Vyverberg 785
Werlich 790
Zucker 795

Home Economics Education

Bubnas 722
Carter 723
Fults 725
Heisler 726
Keenan 724

Interior Design

Davis 776
Koenig 779
Lougeay 777
Morigi 775
Pulley 778

Journalism

Atwood 701
Brown 709
Combs 714
Harmon 705
Jeffers 723
Johnson 708
Marquez 719
Mendenhall 712
Morgan 717
Ostman 720
Parente 724
Rice 710
Smith 721
Stonecipher 702
Trager 713
Webb 725

Linguistics

Carrell 701
Gilbert 702
Konneker 703
Nguyen, D. 704
Parish 705
Perkins 710
Redden 706
Silverstein 707

Marketing

Adams 709
Andersen 702
Dommermuth 705
Dougherty 711
Eckrich 714
Fugate 715
Hindersman 710
Moore 704
Perry 703

Mathematics

Artemiadis 701
Baartmans 702
Badger 763
Beckemeyer 741
Biesterfeldt 703
Bouwsma 704
Burkom 762
Burton 705
Button, R. 748
Carmony 759
Crenshaw 706
Danhof 707
Elston 743
Foland 708
Gates 709
Gregory 710
Grimmer 737
Hooker 711
Hsu 753
Hunsaker 712
Kammiller 713
Kirk 714
Koch 715
Langenhop 717
Mark 718
Maxwell 719
McGlinn 766
Millman 720
Miller, A. 751
Moore 721

Nathanson 722
Paine 738
Panchapakesan 723
Parker 724
Patula 725
Pedersen, F. 726
Pedersen, K. 727
Perlmutter 754
Peterson, W. 747
Phillips 761
Seldin 728
Shock 729
Skalsky 730
Snyder 731
Starks 732
Sverdløve 764
Townsend 733
Troutt 760
Tupitsyn 765
Williams 755
Wilson 734
Wimp 745

Medical Education Preparation

Baker 712
BeMiller 701
Bynum, J. 716
Epps 723
George 711
Pappelis 721
Pohlmann 717
Rainey 705
Venable 709
Walsh 718
Wilcox 722

Microbiology

Borgia 709
Caster 701
Jackson 703
McClary 704
Ogur 705
Rouhandeh 706
Shechmeister 707

Music

Bakker 741
Barwick 704
Bateman 713
Bergt 717
Bliven 743
Boe 710
Bottje 707
Coker 738
Daugherty 731
Eddins 723
Fligel 742
Floyd 719
Gordon 705
Grizzell 729
Hanes 728
Hussey 714
Kageff 721
Kingsbury 720
Koenigstein 724
Lemasters 730
Marvin 734
McHugh 703
Mueller 706
Olsson 702
Poulos 725
Pressley 722
Resnick 708
Siener 711
Taylor 715
Underwood 712
Valk 740
Von Gunden 739
Wallace 709
Werner 716

Occupational Education

Bailly 735

Bittle 743	Nequin 767	McNeel 717	Craig 727	Walsh 753
Bortz 741	Parke 761	Meltzer 718	Cuvo 707	White, J. 754
Boss 760	Peterson 779	Miller 719	Gardner 709	White, R. 755
Builda 744	Richardson 756	Mitchell 720	Grenfell 710	Wolf 756
Erickson 737	Sollberger 768	Molfese, D. 721	Hawley 712	Workun 757
Gooch 751	Stacy 752	Molfese, V. 722	Lee 713	Yack 758
Harbert 755	Taylor 751	Moreland 723	Lorenz 714	
Huck 740	Timmons 750	O'Donnell 724	McDonald 715	Social Welfare
Jenkins 731	Wade 760	Pitz 725	Miranti 726	Auerbach 701
Ramp 736	Yau 770	Purcell 726	Poppen 716	Brelje 702
Rosenbarger 742		Rader 727	Renzaglia 717	Brown, F. 703
Shields 739	Plant and Soil Science	Radtke 728	Robinson 718	Brown, T. 704
Stadt 738	Beyler 718	Rafferty 729	Rubin 719	Handler 706
Sullivan 734	Coorts 701	Ramanaiah 730	Sanders 720	McDermott 707
Weisman 733	Elkins 708	Ringuette 734	Schumacher 721	Rosen 710
	Hillyer 709	Schill 735	Vieceli 723	Walker 711
Philosophy	Holmes, R. 716	Schmeck 736		Wesley 712
Audi 712	Jones 707	Shoemaker 737	Religious Studies	
Clarke 729	Kapusta, G. 715	Snyder 738	Bengtson 702	Sociology
Diefenbeck 701	Leasure, J.K. 717	Tinsley 740	Hayward 701	Alix 704
Eames, E. 739	Maleike 702	Westberg 742	Hutch 703	Brooks 702
Eames, S. 718	Mowry 704		Lemert 710	Burger 703
Fronidizi 723	Myers 714	Public Visual		Eynon 701
Gillan 715	Olsen 711	Communications	School of Technical	Gaston 705
Hahn 768	Pierceall 719	Blumenberg 701	Careers	Greenstein 738
Howie 792	Portz 712	Bukalski 709	Albert 701	Hawkes 706
Kelly 717	Satchell 703	Cocking 713	Bleyer 703	Hendrix 708
Liu, S. 702	Stucky 710	Covell 710	Brown 704	Johnson 707
McClure 716	Tweedy 706	Dybvig 717	Bushee 705	Lantz 709
Mijuskovic 703	Varsa 705	Fagin 711	Caldwell 706	Lemert 710
Plochman 760		Gilmore 702	Cash 707	Marcum 739
Schedler 750	Political Science	Goodger-Hill 703	Dakin 708	McGlynn 711
Tenney 720	Baker 712	Hildreth 718	Dallman 709	Meddin 712
	Bhattacharyya 709	Horrell 704	DaRosa 710	Munch 713
Physical Education-Men	Chou 711	Kurtz 719	Delmastro 711	Nall 714
Ackerman 705	Dale 716	Lynch 720	Dettman 765	Patterson 721
Carroll 706	Derge 725	Mercer 705	Edwards 712	Rossel 715
Good 707	Ervin 729	Olson 722	Greathouse 713	Snyder 716
Knowlton 708	Foster 735	Paine 706	Harre 714	
Shea 709	Garner 727	Petrillo 712	Hees 715	Special Education
Stotlar 711	Goodsell 726	Shipley 725	Hendricks 716	Brecht 706
Wilkinson 712	Hardenbergh 710	Swedlund 707	Hertz, D. 717	Casey 713
	Hone 736	Terwische 726	Hertz, V. 718	Crowner 707
Physical Education-	Jackson 720	Yoder 730	Holmes 719	Ewing 705
Women	Jacobini 708	Zirpola 708	Hoppe 720	Hisama 703
Idoine 719	Jones 737		Icenogle 721	Joiner 712
Kostalick 714	Kamarasy 731	Radio-Television	Ijams 722	Juul 709
LeFevers 701	Kenney 706	Brown 715	Johnson, B. 723	Morgan 708
Potter 702	Lachman 738	Criswell 716	Johnson, J. 761	Rainey 704
Thorpe 703	Landecker 733	Dybvig 717	Johnston 724	Stephens 711
West 704	Luskin 739	Garry 732	Kazda 725	Stoneburner 702
	Mace 724	Hildreth 718	Knutsen 726	Teska 710
Physics and Astronomy	Mason 740	Holmes 733	Kreutzer 727	
Borst 705	McGrath 705	Kurtz 719	Kusek 760	Speech
Bose 710	Miller 715	Lynch 720	Laake 728	Bytwerk 722
Chang-Fang 715	Morris 718	Mampre 731	Lackey 729	Fish 701
Gruber 720	Nelson 707	Olson 722	Lampman 764	Hibbs 702
Henneberger 725	Paine 728	Rochelle 724	McCloskey 730	Higginbotham 703
Johnson 730	Schubert 741	Ryan 734	Martin 759	Kleinau, M. L. 704
Nickell, W. 735	Stauber 717	Shipley 725	Miriani 731	Kleinau, M. D. 705
Sanders 740	Turley 722	Terwische 726	Morgan 732	Lanigan 715
Saporoschenko 745	Turner 704	Walker 727	Muhich 733	MacDonald 723
Telschow 765	Van Der Slik 714	Yoder 730	Muthukrishnan 763	McCauliff 706
Watson 750	Wasby 713		Novick 734	McHughes 707
Zitter 755		Recreation	Okita 735	McGlone 720
Physiology	Psychology	Abernathy 701	O'Loughlan 766	Pace 710
Banerjee 762	Baez 703	Allen 710	Osborn 736	Potter 711
Browning 763	Bliss 743	Freeberg 702	Paulk 737	Sanders 712
Critz 774	Brutten 704	Loveland 711	Pratt 738	Smith 713
Dunagan 755	Bekker 705	Malinauskas 713	Reynolds 739	
Ellert 775	Buck 706	McEwen 709	Richey 740	Speech Pathology and
Estavillo 773	Carrier 707	O'Brien 704	Robb 741	Audiology
Falvo 764	Dunagan 710	Smith, O. 708	Romack 742	Anderson 701
Freund 778	Durlak 747	Taylor 707	Schafer 743	Blache 702
Gass 758	Ehrenfreund 701	Yambert 712	Shupe 762	Brackett 703
Hunter 776	Gannon 746		Smith, D. 744	Brutten 704
Kaplan 759	Graham 711	Rehabilitation Institute	Soderstrom, H. 745	Copeland 705
Lehr 765	Harren 712	Allen 701	Soderstrom, R. 746	Franzen 706
Mickus 769	Haynes 748	Azrin 702	Staley 747	Hoshiko 707
Miller 757	Levitt 713	Baker, R. 724	Sutton 748	Mconcur 708
Moore 780	Lit 714	Baker, F. 725	Traylor 749	Muma 711
Myers 753	Mannarino 749	Bender 703	Tregoning, P. 750	Pace 709
Nekola 777	McHose 715	Bradshaw 704	Trotter 751	Shoemaker 710
	McKillip 716	Bryson 705	Vaughn 752	

Technology Department

Anderson 715
Andrews 702
Barbay 712
Bell 720
Besterfield 707
Chen 705
Cowley 718
Doty 721
Dunning 710
Ferketich 709
Ferrell 711
Johnson 714
Klopp 703
Mesra 719
Meyers 717
Moeller 713
Ott 708
Rogers 706
Williamson 716

Theater

Cannon 701
Idoine 719
Kostalik 714
Moe 704
Payne 708
Proctor 718
Reynolds 716
Stewart-Harrison 702
Straumanis 705
Talarowski 715
Taylor 720

**Thermal &
Environmental
Engineering**

Chen 702

Cook 706
Helmer 709
Hesketh 703
Jefferson 708
Kent 707
Muchmore 701
Obrien 704
Petrie 705
Sinha 710

**Vocational Education
Studies**

Anderson 710
Bailey 735
Bittle 743
Bortz 741
Boss 760
Bubnas 722
Buila 744
Carter 723
Erickson 737
Fults 725
Gooch 751
Harbert 755
Heisler 726
Huck 740
Jenkins 731
Kennan 724
Lemser 712
Rahe 714
Ramp 736
Rosenbarger 742
Shields 739
Stadt 738
Stitt 702
Sullivan 734
Weisman 733
Welton 706

Wood 701

Zoology

Anthony 705
Beatty 710
Blackwelder 713
Brandon 716
Dyer 720
Englert 723
Galbreath 727
Garoian 730
George 733
Hardin 740
Heidinger 743
Klimstra 750
LeFebvre 755
Lewis 758
Martan 765
McPherson 769
Paparo 775
Petersen 778
Shepherd 783
Stahl 788
Stains 791
Waring 794

SIU

This issue of the *Southern Illinois University Bulletin*, Schedule of Classes, Summer Session 1977, was published for the Office of Admissions and Records by University Graphics.

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Step 5. Tuition and Fee Payment. The fee statement you received at Step 4 must be presented to the Bursar with payment by the date indicated or your registration will be cancelled.

Enter section
number in
Sect. No.
column on
Course
Request Form.

Course No.		Course Title		Semester		Hours of Credit
Call Sect No.	No.	Time	Days	Building (See pg 8)	Room	Instructor's Name
101 INSIGHT-HI-FILASER						
	1	12:00	M W	Nkrs B	440	Johnson K
		08:00-09:50	T	Nkrs C	407	
3334	2	12:00	M W	Nkrs B	440	Johnson K
		10:00-11:50	T	Nkrs C	407	
3335	3	12:00	M W	Nkrs B	440	Johnson K
		12:00-01:50	T	Nkrs C	407	
3336	4	12:00	M W	Nkrs B	440	Johnson K
		02:00-03:50	T	Nkrs C	407	
3337	5	01:00	M W	Nkrs B	440	Johnson K
		08:00-09:50	Th	Nkrs C	407	
3338	6	01:00	M W	Nkrs B	440	Johnson K
		10:00-11:50	Th	Nkrs C	407	
3339	7	01:00	M W	Nkrs B	440	Johnson K
		12:00-01:50	T	Nkrs C	407	
3340	8	01:00	M W	Nkrs B	440	Johnson K
		02:00-03:50	Th	Nkrs C	407	
106 CHEM - NON-SCI MAJ						
0743	1	10:00	M W F	Nkrs B	240	Beyler R
0744	2	01:00	M W F	Park	124	Hadley E
107 CHEM LAB-NONSCI MAJ						
Prereq: Concurrent enrollment in GSA 106						01.0 Cr

Present your fee statement to the Bursar's Office by the fee deadline indicated on the fee statement. If you choose to pay or clear your fees by mail, the deadline is one week earlier than the indicated date.

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Carbondale



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**Schedule of Classes
Carbondale**



Southern Illinois University at Carbondale is in compliance with Title IX of the Education Amendments of 1972. In part, Title IX mandates that no person shall, on the basis of sex, be excluded from participation, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. Inquiries concerning the application of Title IX regulations may be directed to Dr. Mary Helen Gasser or Mr. Richard Hayes, University Affirmative Action Office, Anthony Hall, Room 104, telephone 536-6618.

Southern Illinois University Bulletin

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This issue of the Southern Illinois University Bulletin contains the schedule of classes to be offered by Southern Illinois University at Carbondale for the 1977 fall semester at Carbondale, at the Vocational-Technical Institute Campus, at Little Grassy Lake, and at graduate residence centers. It also provides information relative to admission, advisement, registration, and fees.

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University Calendar

Spring Semester 1977

Semester Classes Begin
Washington's Birthday Holiday
Spring Vacation

Final Examinations
Commencement

Monday, January 17, 8:00 A.M.
Monday, February 21
Saturday noon-Monday 8:00 A.M.,
March 19-28
Saturday-Friday, May 7-13
Saturday, May 14

Summer Session 1977

Eight-Week Session Begins
Independence Day Holiday
Final Examinations
Commencement

Monday, June 13, 7:30 A.M.
Monday, July 4
Thursday and Friday, August 4-5
Saturday, August 6

Fall Semester 1977

Semester Classes Begin
Labor Day Holiday
Thanksgiving Vacation

Final Examinations

Monday, August 22, 8:00 A.M.
Monday, September 5
Saturday 10:00 P.M.-Monday 8:00
A.M., November 19-28
Saturday-Saturday, December 10-17

Spring Semester 1978

Semester Classes Begin
Washington's Birthday Holiday
Spring Vacation

Final Examinations
Commencement

Monday, January 16, 8:00 A.M.
Monday, February 20
Saturday 10:00 P.M.-Monday 8:00
A.M., March 18-27
Saturday-Friday, May 6-12
Saturday, May 13

Calendar of Events

Preregistration is required for the tests listed below. Please contact the Testing Division, Career Planning and Placement Center, Woody Hall B209, at least four weeks before the scheduled test. At the time of this publication, dates for many of the tests to be given were not yet available. Contact the Testing Division concerning the scheduled dates for those other tests.

October

1, Saturday	Medical College Admission Test
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November

12, Saturday	Veterinary Aptitude Test
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Registration Calendar Fall Semester 1977

Advance Registration Dates

Advance Registration Period for All Students, Tuesday, February 22–Friday, May 6, and Monday, June 20–Friday, August 5.

All continuing students are expected to be registered by August 5. Program changes may be processed during the advance registration period. Students are urged to process program changes prior to the first day of classes.

Deadline for Payment of Tuition and Fees by Mail, Friday, August 12.

Payment must be mailed to the Bursar prior to this date to insure receipt of payment by this date. Students paying after this date must pay in person at the Bursar's Office in Woody Hall.

Last Day to Pay Tuition and Fees for the Fall Semester, Friday, August 19.

Registration will be cancelled if fees are not paid at the Bursar's Office by 5:00 P.M. on this date.

Final Registration Dates

Registration for Any Student Not Registered, Thursday and Friday, August 18, 19.

Students registering on these dates must clear their fees with the Bursar the same day they register.

Last Day to Register for the Fall Semester, Friday, August 19.

Registration for any student not registered. Registration ends at 5:00 P.M. All registrations are cancelled if tuition and fees are not paid before 5:00 P.M. on this date. Students registering after this date must have special permission of their dean to register late.

Program Changes or Withdrawal from School

Advisement and Registration Open for Program Changes

Program changes may be processed during the advance registration period (February 21–August 5) and during the first week of classes, August 22–26.

Last Day to Add a Class or Section, Friday, August 26.

This is the last day to make a program change in which a course is added or a section is changed without dean's permission.

Students adding a course which begins after August 26 may add through the first day the course meets without the dean's permission.

Deadlines for Withdrawing from School or from a Course

<i>If Classes Meet for</i>	<i>Section Number Range</i>	<i>Deadline for Withdrawal to Receive Refund</i>	<i>Deadline to Withdraw Without a Grade</i>	<i>* Deadline to Change Audit, Credit, or P/F Status</i>
13-16 weeks	001-099	Sept. 9	Sept. 23	Sept. 23
9-12 weeks	101-199†	2nd week	4th week	4th week
7 or 8 weeks	201-299	2nd week	3rd week	3rd week
4-6 weeks	301-399	1st week	2nd week	2nd week
2 or 3 weeks	401-499	1st week	1st week	1st week
Less than 2 weeks	501-599	2nd day	2nd day	2nd day

* Students changing from credit to pass/fail or from credit to audit after these deadlines must have dean's approval.

† An exception to the section number range scheme is the course GSD 101, which frequently has an offering of more than one-hundred different sections which meet the full 16 weeks.

Last Day to Process a Program Change or Withdrawal for the Fall Semester, Friday December 2.

This is the last day to make a program change or to withdraw from school except under exceptional circumstances. Students enrolled in courses which meet less than eight weeks must process a program change or withdrawal before the last week of the course.

Registration Instructions

Refer to next page for registration work sheets that may be used in determining your class schedule.

Registration Instructions

Step 1. Biographic Information. Present your Course Request Form (CRF) at Step 1. Receive biographic data card. Eligibility to register will be checked. Make necessary corrections on the biographic card. New students will be photographed for I.D. cards.

Step 2. Sectioning. Using course availability boards and Schedule of Classes book, work out your schedule on a registration work sheet. Enter the 4 digit call number for each course and section in the column to the left of course entry on CRF—currently headed "Dept. Code No." or "Call No." Enter section number in the appropriate column. The section number appears in the Schedule of Classes immediately preceding the listed class meeting time. The call number appears to the left of the section number. The day, time, and location for added classes will be posted on one group of bulletin boards. Find meeting information and call number here. The legend for the colored tags will be posted in Registration. If a course shows a restriction, you must have the proper authorization before going to Step 3. Consult the Schedule of Classes book for specific restriction information.

Step 3. Registration and Fee Assessment. Give your completed CRF to the operator who will enter your registration information. Watch the screen to check the operator's accuracy and call attention to any errors. Proceed to Step 4.

Step 4. Enrollment Form and Fee Statement Pick-up. Pick up the printout of your enrollment transaction and your fee statement. Proceed to Exit.

Step 5. Tuition and Fee Payment. The fee statement you received at Step 4 must be presented to the Bursar with payment by the date indicated or your registration will be cancelled.

Student
STUDENT'S NAME (Please Print) LAST
LOCAL ADDRESS 123 Z St. Ca STREET & NO

UNDERGRADUATE COURSE REQUESTS

FOR **FALL** SEMESTER QUARTER

DEPT CODE NO	DEPT.	COURSE NO	SECT NO	QTR HRS
3334	GSA	101	2	3
0743	GSA	106	1	3
0745	GSA	107	1	1
2062	GSA	110	2	3
TOTAL QUARTER HOURS				10

U.R. Adviser 3
ADVISER

THIS SCHEDULE IS NOT AN OFFICIAL RECORD

Enter 4 digit call number in Dept. Code No. column on Course Request Form.

Enter section number in Sect. No. column on Course Request Form.

SCHEDULE OF GENERAL STUDIES COURSES

General Studies Area A—Man's Physical Environment and Biological Inheritance (GSA)

Course No	Course Title	Semester Hours of Credit
Call Sect No. No. Time	Days	Building (See pg 8) Room Instructor's Name
3333 1 12:00	M W	Nkrs B 440 Johnson K
3334 2 12:00	T	Nkrs C 407
3334 2 12:00	M W	Nkrs B 440 Johnson K
3335 3 12:00	T	Nkrs C 407
3335 3 12:00	M W	Nkrs B 440 Johnson K
3336 4 12:00	T	Nkrs C 407
3336 4 12:00	M W	Nkrs B 440 Johnson K
3337 5 01:00	T	Nkrs C 407
3337 5 01:00	M W	Nkrs B 440 Johnson K
3338 6 01:00	Th	Nkrs C 407
3338 6 01:00	M W	Nkrs B 440 Johnson K
3339 7 01:00	Th	Nkrs C 407
3339 7 01:00	M W	Nkrs B 440 Johnson K
3340 8 01:00	Th	Nkrs C 407
3340 8 01:00	M W	Nkrs B 440 Johnson K
106	CHEM - NON-SCI MAJ	03.0 Cr
0743 1 10:00	M W F	Nkrs B 240 Bessler E
0744 2 01:00	M W F	Park 124 Hadley E
107	CHEM LAB-NONSCI MAJ	01.0 Cr
Prereq: Concurrent enrollment in GSA 106		

SAM A. STUDENT

987-65-4321

FALL76

FL 5 FEE CODE 01 RES 1 FH 10 03-07-76

TUITION \$180.00
STU CTR FEE 18.00
ACTIVITY FEE 4.75
SWRF FEE 4.00
ATHLETIC FEE 16.00
MEDICAL FEE 17.25
SWRF-M FEE 15.00
STS FEE 2.25
STU ATTY FEE 1.00

SEND THIS PART WITH PAYMENT TO BURSAR.

THIS PART MUST BE RETURNED TO BURSAR TO COMPLETE REGISTRATION EVEN IF YOU HAVE NO TUITION OR FEES TO PAY

TOTAL AMOUNT \$258.25 DUE BY 08-20-76

Fee Statement
Southern Illinois University at Carbondale

Present your fee statement to the Bursar's Office by the fee deadline indicated on the fee statement. If you choose to pay or clear your fees by mail, the deadline is one week earlier than the indicated date.

1 General Information

THIS BULLETIN contains the schedule of classes offered for the 1977 fall semester, by Southern Illinois University at Carbondale. It also provides information relative to advisement and registration, fees, and allied information.

Admission

Inquiries concerning undergraduate and graduate admission should be directed to the Admissions Office.

Advisement and Registration

Southern Illinois University at Carbondale uses an academic advisement system whereby each undergraduate academic unit has a chief academic adviser and a number of assistant advisers selected from the teaching faculty. Graduate students initiate advisement with their graduate adviser and complete the registration process at the Registration Center, except that unclassified graduate students go directly to the Registration Center (Graduate/Off-Campus Registration Area) to complete both the advisement and the registration processes.

After advisement the student may register for classes. See the Registration Calendar in this bulletin. During the registration process the student goes to the Registration Center, where he selects specific sections of the courses he is to take.

Cancellation of student registrations for non-payment of fees occurs on the date indicated in the Registration Calendar.

Mere attendance does not constitute registration in a class, nor will attendance in a class for which a student is not registered be a basis for asking that a program change be approved permitting registration in that class. Students should complete the registration process before classes begin.

New Students

Students entering the University for the first time are permitted to advance register only after they have been admitted to the University as evidenced by their receiving the Certificate of Admission.

New undergraduate students, freshmen and transfer, will be expected to advance register on the same date that they come to the campus for advisement. Dates for students to do so will be selective ones in which the students are asked to come to the campus on specific dates as determined by the University. Students should not expect to be advised and registered on the same date they are admitted nor are they to come to the campus for advisement and registration without an appointment.

2 General Information

Appointments for advisement and registration will be mailed from and are to be returned to the Office of Admissions and Records or the appropriate academic unit.

New graduate students may register during the registration periods indicated in the registration calendars. Arrangements should be cleared with the appropriate graduate adviser prior to coming to campus.

Re-Entering Students

Students who have attended the University at some former time but not during the session immediately prior to the time they plan re-entry are expected to advance register during the periods outlined in the Registration Calendar. After completing readmission procedures advisement appointments should be made at the advisement offices of the academic units into which the students are entering and clearance of the registrations should be completed on that same day at the Registration Center.

Current Students, Carbondale

Students currently registered in the University will be continued in their present curricula unless a change of college or major is made. A change of college or major is initiated with the student's adviser. Either change should be made at the time of advisement.

Undergraduate students currently registered in the University will schedule appointments with their adviser. Registrations should be processed through the Registration Center as soon after advisement as possible.

Graduate students in a degree program should make appointments with the departmental adviser for program advisement. Unclassified graduate students may report directly to the Registration Center for registration.

Off-Campus Students

The University offers courses at various locations off campus. The locations of these courses are printed in this schedule of classes or may be obtained from the Division of Continuing Education. Students who wish to enroll in off-campus courses may register and pay tuition at the first class meeting.

Course Load

The minimum number of hours of credit that a student may take during a regular-length semester and be considered by the University a full-time student is twelve semester hours. The maximum load for a regular-length semester is eighteen semester hours (sixteen for graduate students) unless an exception is granted by the student's academic dean.

Tuition and Fees

Tuition and fees charged students are established by the Board of Trustees and are subject to change without prior notification whenever conditions necessitate. All assessments depend on "Semester Hours Enrolled," according to the table below. Students will be assessed tuition and fees each term according to Table 1.

Additional Fee Information

1. Graduate, medical, and law students are not required to pay the Student-to-Student Grant Program Fee. So they pay \$2.25 less than the amount listed in the appropriate *total* column of the Table 1.
2. Permanent full-time or permanent part-time employees may be eligible for waiver of tuition and waiver of a portion of the student fees. Approval by the department head and the director of the Personnel Office

TABLE 1: On-Campus Tuition and Fee Schedule

Semester Hours Enrolled	TUITION		STUDENT FEES								TOTAL	
	Illinois Resident	Non- Resident	STS Grant (1)	Student Attorney (2)	Student Center (3)	Student Activity (4)	SWRF (5)	Athletic (6)	Medical (7)	SWRF-M (8)	Illinois Resident	Non- Resident
1	\$ 18.00	\$ 54.00	\$2.25	\$1.00	\$10.00	\$2.50	\$.50	\$ 7.00	\$17.25	\$15.00	\$ 73.50	\$109.50
2	36.00	108.00	2.25	1.00	10.00	2.75	.50	8.00	17.25	15.00	92.75	164.75
3	54.00	162.00	2.25	1.00	11.00	3.00	.50	9.00	17.25	15.00	113.00	221.00
4	72.00	216.00	2.25	1.00	12.00	3.25	1.00	10.00	17.25	15.00	133.75	277.75
5	90.00	270.00	2.25	1.00	13.00	3.50	1.50	11.00	17.25	15.00	154.50	334.50
6	108.00	324.00	2.25	1.00	14.00	3.75	2.00	12.00	17.25	15.00	175.25	391.25
7	126.00	378.00	2.25	1.00	15.00	4.00	2.50	13.00	17.25	15.00	196.00	448.00
8	144.00	432.00	2.25	1.00	16.00	4.25	3.00	14.00	17.25	15.00	216.75	504.75
9	162.00	486.00	2.25	1.00	17.00	4.50	3.50	15.00	17.25	15.00	237.50	561.50
10	180.00	540.00	2.25	1.00	18.00	4.75	4.00	16.00	17.25	15.00	258.25	618.25
11	198.00	594.00	2.25	1.00	19.00	5.00	4.50	18.00	17.25	15.00	280.00	676.00
12 +	214.00	642.00	2.25	1.00	20.00	5.25	5.00	20.00	17.25	15.00	299.75	727.75

The fees which have been established by the Board of Trustees are payable by all students as a condition of enrollment unless they are specifically exempted by the board. All fees are considered to be institutional in nature and require payment regardless of whether or not the student receives direct benefits or is in a location which permits access to such benefits.

The Student-to-Student Grant Program Fee, the Students' Attorney Fee, and portions of the Student Medical Benefit Fee are refundable under certain circumstances.

- (1) The Student-to-Student (STS) Grant Program Fee provides funding of a student grant program. The fee is payable by undergraduate students only. Undergraduate students who do not wish to participate in the program may seek a refund of the fee by contacting the Office of Admissions and Records within ten days of the date of payment of fees.
- (2) The Students' Attorney Fee provides funding for a legal service program. The fee is payable by all students. Students who do not wish to participate in the program may seek a refund by contacting the Office of Admissions and Records within ten days of the date of payment of fees.

- (3) The Student Center Fee provides funding for operation of the Student Center.
- (4) The Student Activity Fee provides funding for student organizations and activities on campus.
- (5) The Student Welfare and Recreation Fund (SWRF) Fee provides funding for construction and operation of physical facilities for student recreation and intramural programs.
- (6) The Athletic Fund Fee provides partial funding of the University's intercollegiate programs for men and women.
- (7) & (8) The Student Medical Benefit Fee and the Student Welfare and Recreation Fund-Medical (SWRF-M) Fee provide funding for a comprehensive student health program including emergency service; hospitalization; specialty, primary, intermediate, or infirmary care; and prevention program. A student who pays these fees is entitled to full medical benefits at Health Service. If he feels that he has comparable coverage, he may seek a refund of the \$17.25 fee within the first four weeks of each semester by contacting the administrative director of Health Service.

4 General Information

are required to pay *tuition* as listed in the table above but do not pay *student fees*.

4. Adult education course fees are computed on the basis of approximately sixty cents per contact hour.

5. Other charges which students may incur are those for departmental field trips, library fines, and excess breakage. Also, students taking a course involving use of materials, as distinct from equipment, will ordinarily pay for such materials.

6. Students enrolling in both on- and off-campus courses pay tuition and fees based upon the on-campus tuition and fee schedule for the combined total of hours enrolled.

7. Students enrolled in Public Service Courses pay tuition plus \$3.00 per hour fees divided equally between Student Center and Medical. Students enrolling in a combination of Public Service Courses and regular on-campus courses pay tuition and fees based upon the on-campus tuition and fee schedule for the combined total of hours enrolled.

8. School of Medicine students enrolled at Carbondale do not pay the Student Medical Benefit Fee (\$17.25). Medical students at Springfield do not pay the Student Center Fee, SWRF Fee (non-medical portion), Athletic Fee, or Student Medical Benefit Fee.

Payment of Fees

Undergraduate students receive their fee statements at the time of registration. During the advance registration period students are asked to delay paying their fees in person at the Bursar's Office until the day following registration. This is to permit necessary fee information to reach the Bursar by the time of fee payment. Students will find it easier simply to mail the fee statement along with a check or money order for the proper monetary amount to the Bursar's Office so as to arrive there by the deadline dates which are stated in the Registration Calendar located earlier in this bulletin. If students pay fees in person at the Bursar's Office they receive a Student Fee Statement at that time. When fees are paid by mail, the fee statement may be picked up by the student when he returns to campus. It is important that these forms be carried by the students at all times.

Students registering at the start of a semester must pay fees at the time of registration.

Deferment of Tuition and Fees

Special fee deferments are available to students who (1) can demonstrate financial need, (2) meet minimal requirements, and (3) can provide written verification of the ability to pay. Information on fee deferments is publicized each term in the Student Relations Office, Office of Admissions and Records, Bursar's Office, Student Work and Financial Assistance Office, and the *Daily Egyptian*. Guidelines may vary from term to term and year to year and the student is advised to seek out the accurate information rather than assume that he/she qualifies for a deferment.

Students applying for a fee deferment must complete registration to the receipt of a fee statement. Applicants must be full time students as defined by the Office of Admissions and Records and the fee statement must bear a minimum balance of \$65. The fee statement and written verification from the source of funds to be used to pay tuition and fees must be presented to the Student Relations Office to obtain an application. Applications are processed one week prior to the first week of classes. Recipients of fee deferments will not be allowed to register for any future

semester until payment is made. Additional information on deferments is available in the Student Relations Office. Phone or mail requests for deferments will not be accepted.

If approval is granted, tuition and fees will be placed on Fee Code 66 for the term and the student will be obligated to pay by the approved deferred date. Failure to pay deferred fees will result in withholding of permission to register for succeeding terms and withholding of transcripts.

Audit and Non-Credit Courses

Students who register for a course for *audit* or for a non-credit course will be assessed fees according to the imputed hours of that course. *Imputed hours* is generally the number of hours the class meets per week.

Scholarships-Grants-Assistantships-Waivers

Students having special fee status, such as scholarships, grants, graduate appointments, faculty, and staff, will pay fees according to their particular fee status and must provide proof of their eligibility at the time fees are assessed.

Students holding valid state scholarships and other grants are exempt from some or all of the tuition and fees for a semester to the extent provided by the terms of the specific financial aid. Additional information concerning scholarships and grants may be obtained from the Office of Student Work and Financial Assistance.

Graduate Appointees

A graduate student who holds a graduate-student appointment of at least one-quarter of full time and who is appointed for the full length of an academic term (semester or full-length summer session) is eligible for a waiver of tuition each academic term the appointment is held. If a student is appointed for less than a full academic term on a fiscal pay basis, he is not eligible for a tuition waiver for that academic term.

A student who holds an appointment for the full academic term but resigns before the end of that term, and who continues to be registered for courses, shall be liable for the full tuition for the term.

A graduate student who has held such an appointment, requiring service to the University of at least 25 percent of full time, for each of two consecutive semesters will be eligible for a waiver of tuition for the summer session immediately following the two consecutive semesters of service. In no case shall the additional term of tuition waiver be granted before the two consecutive semesters of service have been completed.

This additional term of tuition waiver shall not apply to nonservice appointments or appointments normally awarded for 12 or more consecutive months (i.e., special doctoral assistantships, graduate or special fellowships). NDEA (Title IV) fellows, NSF trainees, and NSF fellows are not eligible.

NDEA (Title IV) fellows and NSF trainees do not pay fees, assessments, or tuition.

Faculty and Staff

Employees in faculty-administrative positions will receive a tuition waiver and a waiver of some fees whenever they are employed at any time during a semester for which they are registered. If the appointment is at least a nine-month appointment, students may receive the waiver for an additional semester which must follow immediately the last semester of appointment. Students may option summer or fall in this instance.

Civil Service

Employees in civil service positions will receive a tuition waiver and a waiver of some fees only when authorized by the Personnel Office after compliance with personnel regulations.

Auditing of Courses

Students may register for courses in an *audit* status. They receive no letter grade and no credit for such courses. An auditor's registration must be marked accordingly. They pay the same fees as though they were registering for credit. They are expected to attend regularly and are to determine from the instructor the amount of work expected of them. If auditing students do not attend regularly, the instructor may determine that the students should not have the audited courses placed on their record cards maintained in the Office of Admissions and Records. Students registering for a course for credit may change to an audit status or vice versa only for fully justified reasons. See the Registration Calendar for dates.

Pass/Fail Option

The pass/fail option applies only to undergraduate instruction. Pass/fail courses are not available for graduate credit.

Courses offered under the pass/fail option are denoted in the listing of course offerings by "Elective Pass/Fail" or "Mandatory Pass/Fail."

A student taking a course for pass/fail should have his registration marked accordingly.

A student may change to or from pass/fail grading as indicated in the Registration Calendar with an adviser's approval. After that time until the last day to make a program change, he will be permitted to change *from* pass/fail to regular grading with an adviser's approval or *to* pass/fail from regular grading with his dean's approval.

Students are not permitted to elect pass/fail for a course that is a major or minor requirement for them unless the program specifically permits such to be done.

Independent Study Courses

Courses such as special problems, independent research, thesis, etc., involving an individualized instructional format are in the class listing with a section number of "700." Prior to registering in a course of this type, the student must determine the "instructor number" for the faculty member responsible for the student's instruction. That three-digit instructor number, along with the class's printed call number and the instructor's last name, must be indicated on the Course Request Form or Program Change Form at the time of registration. All students should obtain the permission of the individual instructor before registering for such courses. The adviser for students in graduate degree programs will be responsible for determining that the student has the permission required.

A listing of faculty within instructional programs along with each assigned instructor number may be found in the appendix of this book.

Public Service Courses

Public Service Courses are intended to serve persons not necessarily formally enrolled in a degree program at Southern Illinois University at Carbondale, and whose backgrounds are rather homogenous but whose

time constraints do not allow them to attend a similar course during a regular academic semester. Public Service Courses are scheduled to meet no longer than three weeks and are listed in the Schedule of Classes with a section number in the range 601–699.

Program Changes

Students are officially registered only for those courses appearing on their schedule of classes. Any change therefrom must be made through an official program change, which includes the following steps:

1. *Initiating the change.* Students report to their advisers for approval and Program Change form completion. If the change involves only that of changing sections within the same course, this may be done at the Registration Center without the necessity of adviser approval.
2. *Registration.* Students must take the program change form to the Registration Center after approval by the adviser.

Program changes which involve the adding of a new course to the schedule or the changing of sections must be done by the “last day to add a class” as indicated in the Registration Calendar.

Changing Credit Within Variable Hour Courses

Students who wish to change the number of hours of credit within a variable-hour course must process a Program Change Form listing the course and current hours of credit in the drop portion of the form and again in the add portion of the form for the desired number of hours of credit.

Dropping a Course

A program change must be made in order to drop a course. A student may not drop merely by stopping attendance. The last date for dropping a course by an undergraduate student without receiving a letter grade is printed in the Registration Calendar. Graduate students may not necessarily receive a grade for dropping after this date. (Refer to Registration Calendar.)

Changing Fee Status, and Refunds

Students making program changes which result in their moving from one fee status to another will be assessed additional tuition and fees when appropriate. If the change is to reduce the academic load resulting in a lower tuition and fee status, students may apply for the appropriate tuition and fee refund provided the reduction in program is made officially by a program change during the same period at the start of a semester in which students withdrawing from the University are eligible for a refund. For dates refer to the Registration Calendar.

Withdrawing from School

A student who finds it necessary to withdraw from school while the semester is in progress must report to the Student Life Office to initiate official withdrawal action. Graduate students may also initiate withdrawal at the Graduate School. No withdrawal will be permitted during the last two weeks of a semester (last week of an eight-week summer session), except under exceptional conditions. A refunding of fees is permitted only if a withdrawal is officially completed by the deadline stated in the Registration Calendar.

A student who advance registers, including paying of fees, and then finds that he cannot attend school must also officially withdraw from

school. He may do this by writing to the Student Life Office. This must be done by the deadline date printed in the Registration Calendar, if he expects to get a refund.

Cancellation of Registration

An advance registration including the payment of tuition and fees may be considered invalid if the student is declared to be ineligible to register due to scholastic reasons. The same situation may exist due to financial or disciplinary reasons if certified to the Office of Admissions and Records by the Student Life Office.

Personal Data Changes

At the time of registration students are asked to review a Biographic Data Sketch containing personal data. Certain items, if in error, may be corrected at that time. Other items which may require some type of verifying evidence, are changed by reporting to the offices listed below.

1. *Local Address Change*.—Office of Admissions and Records, Registration Center, Graduate School.
2. *Name Change, Marital Status Change, Date of Birth Change*.—Records Section of the Office of Admissions and Records. Verification may be required.
3. *Legal Residence Change* (whether an Illinois or out-of-state resident). —Must be requested by completion of the *Application to be Classified an Illinois Resident* form in the Office of Admissions and Records. Before the change is made the student must have met the regulations governing residency status as established by the Board of Trustees.
4. *Change of College or Major*.—Advisement center or dean's office.

2 Residence Center Courses and Off-Campus Courses

Kaskaskia College Graduate Residence Center

Curriculum, Instruction and Media

- 435-3 Literature for Children
- 498E-3 Workshop in Education-Mathematics
- 571-3 Secondary School Curriculum

Springfield (M.I.F.)

Thermal and Environmental Engineering

- 517-3 Industrial Waste Treatment
- 525-3 Small Particle Phenomena
- 592-1 to 4 Special Investigations in Engineering
- 599-1 to 6 Thesis

3

Schedule of Classes

THIS CHAPTER is arranged in two parts:

1. General Studies Courses.
2. Departmental Courses.

Within each part, the subject areas in which courses are being offered are listed in alphabetical order by name. (The table of contents on pages ii and iii exhibits the subject areas and their page numbers).

Within each subject area, the courses are listed in order by course number. For each course, the first line contains the course number, its short title, number of semester hours of credit, and pass/fail information if applicable.

Within each course, sections are listed in numerical order. The entry for a typical section includes a call number, section number, beginning time, meeting days and place, and the instructor's last name.

A brief discussion of each type of information listed in this schedule follows.

Title Line

First is the course number. It is a three-digit numeral plus, in some cases, a single letter. It identifies the course and indicates the academic classification of the course as follows:

- | | |
|---------|---|
| 000-099 | Course not properly in the following categories |
| 100-199 | For freshmen |
| 200-299 | For sophomores |
| 300-399 | For juniors and seniors |
| 400-499 | For seniors and graduate students |
| 500-600 | For graduate students only |

Next is the short title. For the full title and the course description, refer to the Undergraduate Catalog or the Graduate Catalog.

At the end of the title line is the number of hours of credit awarded for completion of the course. All references to hours of credit imply semester hours unless otherwise specified. One semester hour is equivalent to one and one-half quarter hours.

In a variable-hour course, the student decides the number of hours for which he is going to register in consultation with his adviser.

Courses offered under the pass/fail option are footnoted after the hours of credit. See chapter 1 for further comments on this option.

Prerequisite

The prerequisite entry lists requirements which must be satisfied before a student registers for the course. These prerequisites may be listed in various ways. Usually they are other courses in the same subject area, indicated by a course number. A prerequisite in another area is indicated by that area's code letters and the course number.

Call Number and Section Number

Each section number is preceded by a unique call number, which is a four-digit numeral. Both the call number and the section number must be entered after the appropriate subject-area abbreviation and the course number on the student's Course Request Form or Program Change Form at the time of registration. The section number categorizes course offerings as follows:

- | | |
|---------|--------------------|
| 001-099 | Meets 13-16 weeks |
| 101-199 | Meets 9-12 weeks |
| 201-299 | Meets 7 or 8 weeks |
| 301-399 | Meets 4-6 weeks |

401-499	Meets 2 or 3 weeks
501-599	Meets less than 2 weeks
601-699	Public Service
700	Independent Study
800-899	Off-campus

Time and Days

The times given indicate the beginning and ending of each class period. If no ending time is specified, then it is 50 minutes after the beginning time. Those registering for courses listed as “To be arranged” may obtain times and days from the instructor indicated or, if no instructor is listed, from the department.

Building and Room Number

The following list of building abbreviations will help in the location of classrooms. Buildings are listed alphabetically according to the code used in the class schedule. Temporary buildings are indicated by number only.

If a building contains more than one classroom, then the number of the room follows the building’s code name.

CODE:	BUILDING NAME	GRID	NO.
Ag:	Agriculture Building	J-4	26
Allyn:	Allyn Building	J-5	3
Altg:	Altgeld Hall	J-6	2
Anthon:	Anthony Hall	I-6	5
Arena:	SIU Arena	G-4	41
Avtech:	So. Ill. Airport		*
Bailey:	Bailey Hall (T.P.)	I-4	28
Boat:	Boat Dock	H-4	78
Center:	Student Center	I-5	45
Cl:	General Classrooms	L-5	46
Comm:	Communications	L-4	51
Faner:	Faner Hall	J-5	96
Flight:	So. Ill. Airport		*
Grassy:	Little Grassy Lake		*
Gym:	Davies Gymnasium	J-6	7
Hdball:	Handball Courts	F-4	70
H Ec:	Home Economics	K-6	42
Kaskas:	Kaskaskia College		
	Residence Center		*
Lawson:	Lawson Hall	K-4	47
Lake:	Lake on the Campus	I-3	
Lib:	Morris Library	J-5	25
Lingle:	Arena Classrooms	G-4	40
Logan:	John A. Logan College		*
LS I:	Life Science I	K-4	17
LS II:	Life Science II	K-4	52
L-ApS:	Physical Plant	G-5	56
M.I.F.:	Medical Instructional		
	Facilities, Springfield		*
Nkrs A:	Neckers Bldg. A	H-4	65

Nkrs B:	Neckers Bldg. B	H-4	64
Nkrs C:	Neckers Bldg. C	H-4	63
Park:	Parkinson Building	J-5	4
Pull:	Pulliam Hall		
	(University School)	K-6	23
Pull I:	Pulliam Hall		
	(Industrial Ed. Wing)	K-5	21
Pull P:	Pulliam Hall		
	(Physical Ed. Wing)	L-5	22
Rend L:	Rend Lake College		*
S. East:	Southeastern Illinois College		*
Shawne:	Shawnee College		*
Shry:	Shryock Auditorium	J-5	6
Stad:	McAndrew Stadium	H-5	13
Tech A:	Tech. Bldg. A	H-4	71
Tech B:	Tech. Bldg. B	H-4	72
Tech D:	Tech. Bldg. D	H-4	74
Tennis:	Tennis Courts	G-4	84
Wabash:	Wabash Valley College		
	Residence Center		*
Wham:	Wham Ed. Bldg.	L-5	44
Whlr:	Wheeler Hall	J-6	8
Woody:	Woody Hall	K-6	24

Temporary Buildings

CODE	LOCATION	GRID	NO.
0415	807 S. Forest	M-5	415
0473	805 S. Oakland		*
0549	428 S. Washington	K-7	549
0551	CESL, Barrack T-42	J-5	551
0552	CESL, Barrack T-41	J-5	552
0555	Old Baptist Foundation	J-6	555
0595	408 W. Mill	L-6	595
0605	703 S. Washington	K-7	603
0720	Washington and Park	I-7	720
0721	East of 0720 on Park	I-7	721
0831	Farm Machine Shop— between Neckers Building and the Forestry Research Laboratory	I-4	831
0832	Next to 0831 (above)	I-4	832

VTI Campus Buildings

Buildings coded F, H, L, M, and N are on the VTI Campus, location of some programs of the School of Technical Careers.

Instructor’s Name

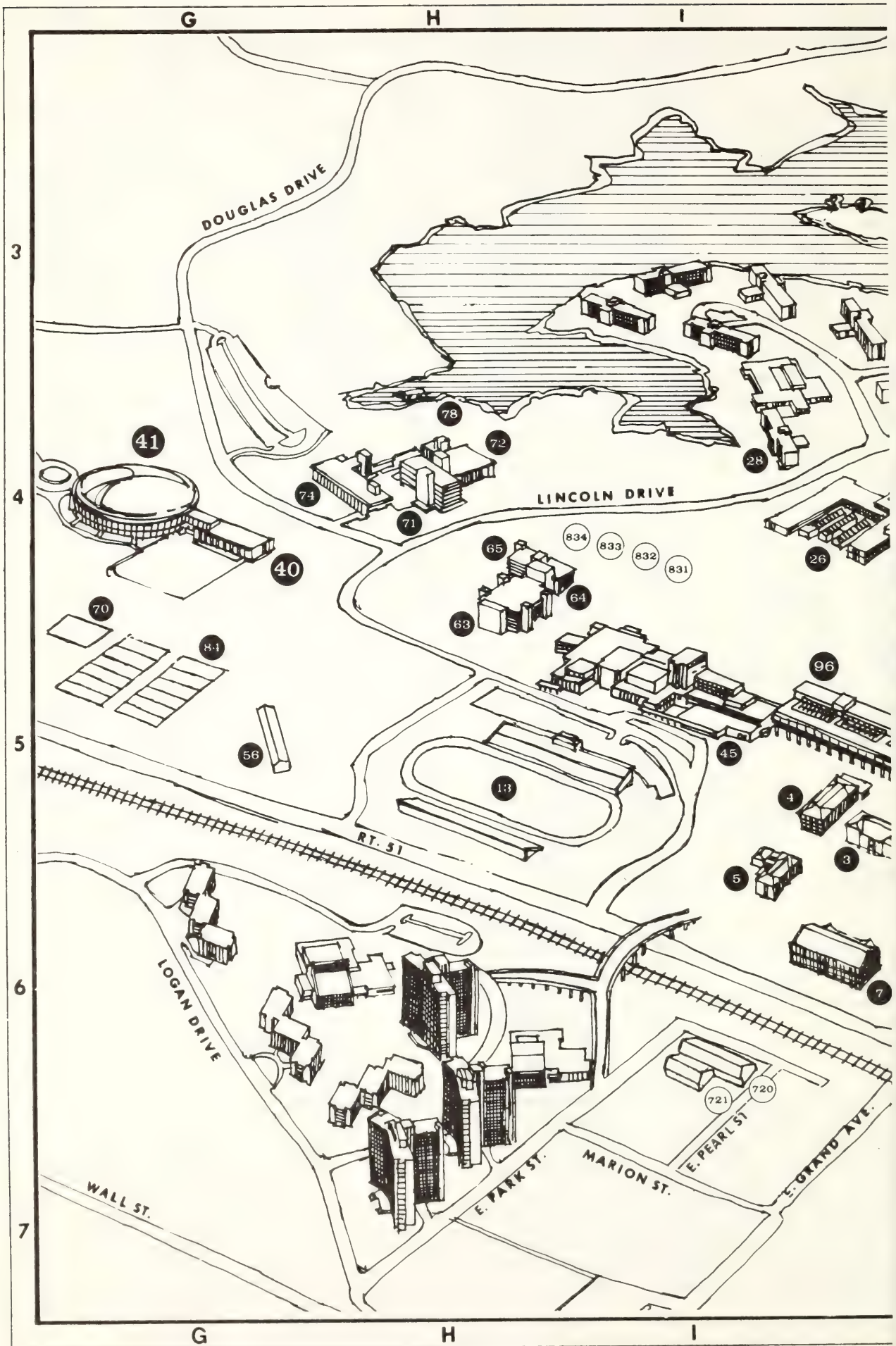
Only the last name is listed here. Each of the University’s catalogs contains an extensive list of members of the faculty, their degrees, and related information.

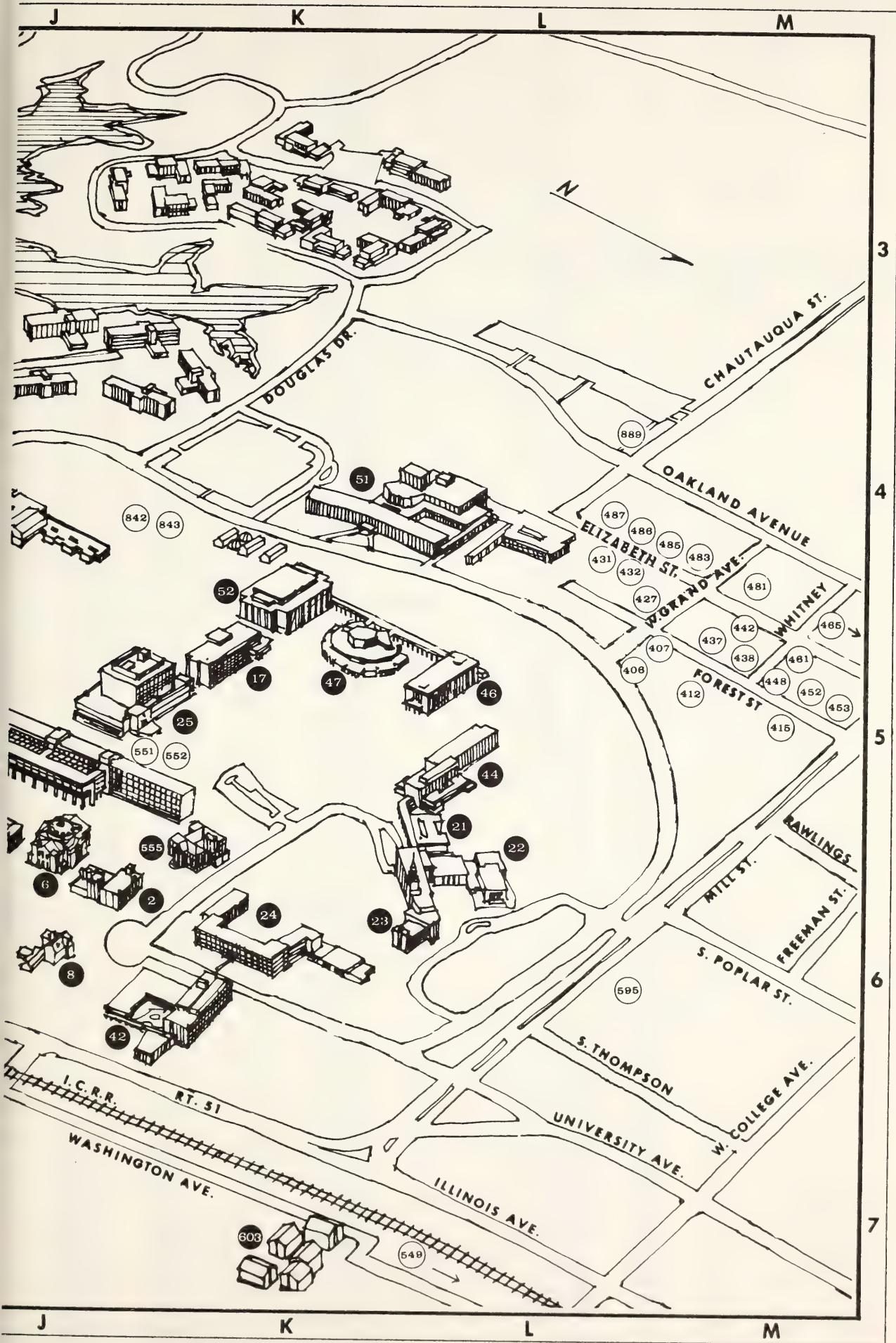
To register for section 700, refer to the instructions in chapter 1 under the heading “Independent Study Courses” and also to the instructors’ numbers listed in the appendix at the end of this book.

* Not shown on the map.

General Studies Courses and Their Parent Departments or Programs

<i>GSA</i>		<i>GSB</i>		<i>GSC</i>		<i>GSD</i>	
COURSE NO.	PARENT DEPT. OR PROGRAM	COURSE NO.	PARENT DEPT. OR PROGRAM	COURSE NO.	PARENT DEPT. OR PROGRAM	COURSE NO.	PARENT DEPT. OR PROGRAM
101	Physics	103	Geography	399A	Interdept.	101	English
106	Chemistry	104	Anthropology	100	Music	104	Linguistics
107	Chemistry			101	Art	106	Mathematics
110	Geology	105	History	102	Philosophy		
115	Biology	109	Black American Studies	104	Philosophy	107	Mathematics
125	Interdept.			107	Recreation		
202	Physics	112	Economics	109	Black American Studies	110	Economics
208	Physiology	125	Interdept.			112	Mathematics
209	Physiology	135	Interdept.				
211	Geology	160	Journalism	200	Speech	113	Mathematics
220	Interdept.	202	Psychology	201	English		
221	Interdept.	203	Sociology	202	English	117	English
230	Interdept.	206	Child & Family	203	Theater	118	English
240	Botany			204	Art	119	English
302	Psychology	207	Political Science	205	Design	152	Speech
303	Botany			206	Music	153	Speech
312	Zoology	211	Economics	207	Philosophy	199A	Library
313	Zoology	212	Political Science	208	Philosophy		
314	Zoology			209	English	<i>GSE</i>	
321	Geology	220	Interdept.	210	English	COURSE NO.	PARENT DEPT. OR PROGRAM
322	Geology	221	Interdept.	212	Philosophy		
323	Geology	230	Anthropology	214	Philosophy	100-	
324	Geology			216	Religious Studies	106	Physical Education for Men
330	Geography	231	Educational Admin.				
356	Engineering Mechanics	250	Political Science	217	Religious Studies	110-	
361	Music			221	Interdept.	114	Physical Education for Women
399A	Interdept.	255	Geography	231	Foreign Lang.	201	Health Ed.
		270	Political Science			236	Food & Nutrition
				232	Foreign Lang.	240	Health Ed.
		299C	Interdept.				
		299D	Agriculture	299E	Interdept.		
		299E	Interdept.	317	English		
		300	History	325	English		
		301	History	330	Foreign Lang.		
		305	Finance				
		310	Journalism	335	English		
		311	Economics	349	Cinema & Photography		
		321	Sociology				
		325	Sociology	363	Philosophy		
		330	Linguistics	365	English		
		341	Sociology	371	Music		
		346	Family Econ.	390	Philosophy		
				393	English		
		378	Political Science	399A	Interdept.		





SCHEDULE OF
GENERAL STUDIES
COURSES

General Studies Area A—Man's
Physical Environment and Biological
Inheritance (GSA)

Course No.		Course Title		Semester Hours of Credit			
Call No.	Sect. No.	Time	Days	Building	Room	Instructor's Name	
101 INSIGHT-HI-FI,LASER 03.0 Cr							
3565	1	11.00	T Th	Nkrs B	440	Johnson K	
		09.00-10.50	M	Nkrs C	407		
3566	2	11.00	T Th	Nkrs B	440	Johnson	
		09.00-10.50	T	Nkrs C	407		
3567	3	11.00	T Th	Nkrs B	440	Johnson	
		09.00-10.50	W	Nkrs C	407		
3568	4	11.00	T Th	Nkrs B	440	Johnson	
		09.00-10.50	F	Nkrs C	407		
3569	5	12.00	T Th	Nkrs B	440	Cutnell J	
		12.00-01.50	M	Nkrs C	407		
3570	6	12.00	T Th	Nkrs B	440	Cutnell J	
		12.00-01.50	W	Nkrs C	407		
3571	7	12.00	T Th	Nkrs B	440	Cutnell J	
		12.00-01.50	F	Nkrs C	407		
3572	8	12.00	T Th	Nkrs B	440	Cutnell	
		02.00-03.50	M	Nkrs C	407		
3573	9	12.00	M W	Nkrs B	440	Cutnell J	
		09.00-10.50	Th	Nkrs C	407		
3574	10	12.00	M W	Nkrs B	440	Cutnell J	
		11.00-12.50	Th	Nkrs C	407		
3575	11	12.00	M W	Nkrs B	440	Cutnell J	
		11.00-12.50	T	Nkrs C	407		
3576	12	12.00	M W	Nkrs B	440	Cutnell J	
		02.00-03.50	W	Nkrs C	407		
3577	13	01.00	M W	Nkrs B	440		
		01.00-02.50	T	Nkrs C	407		
3578	14	01.00	M W	Nkrs B	440		
		03.00-04.50	T	Nkrs C	407		
3579	15	01.00	M W	Nkrs B	440		
		01.00-02.50	Th	Nkrs C	407		
3580	16	01.00	M W	Nkrs B	440		
		03.00-04.50	Th	Nkrs C	407		
106 CHEM - NON-SCI MAJ 03.0 Cr							
0861	1	09.00	M WThF	Nkrs B	240	Beyler R	
0862	2	04.00	MTWTh	Nkrs B	240	Smith G	
107 CHEM LAB-NONSCI MAJ 01.0 Cr							
0863	1	09.00-10.50	F	Nkrs C	108	Smith	
0864	2	11.00-12.50	W	Nkrs C	108	Smith	
0865	3	02.00-03.50	M	Nkrs C	108	Smith	
110 EARTH SCIENCE 03.0 Cr ¹							
2271	1	09.00	T Th	Park	124		
		08.00-09.50	M	Park	200		
2272	2	09.00	T Th	Park	124		
		10.00-11.50	T	Park	200		
2273	3	09.00	T Th	Park	124		
		12.00-01.50	M	Park	200		
2274	4	09.00	T Th	Park	124		
		02.00-03.50	Th	Park	200		
2275	5	09.00	T Th	Park	124		
		08.00-09.50	W	Park	200		
2276	6	09.00	T Th	Park	124		
		06.00-07.50 pm	T	Park	213		
2277	7	09.00	T Th	Park	124		
		08.00-09.50	F	Park	200		
2278	8	09.00	T Th	Park	124		
		10.00-11.50	F	Park	200		

2279	9	09.00	T Th	Park	124		
		10.00-11.50	W	Park	200		
2280	10	09.00	T Th	Park	124		
		10.00-11.50	M	Park	200		
2281	11	09.00	T Th	Park	124		
		12.00-01.50	T	Park	200		
2282	12	09.00	T Th	Park	124		
		10.00-11.50	Th	Park	200		
2283	13	10.00	T Th	Park	124		
		10.00-11.50	M	Park	213		
2284	14	10.00	T Th	Park	124		
		12.00-01.50	T	Park	213		
2285	15	10.00	T Th	Park	124		
		02.00-03.50	W	Park	213		
2286	16	10.00	T Th	Park	124		
		12.00-01.50	F	Park	213		
2287	17	10.00	T Th	Park	124		
		08.00-09.50	M	Park	213		
2288	18	10.00	T Th	Park	124		
		02.00-03.50	M	Park	213		
2289	19	10.00	T Th	Park	124		
		08.00-09.50	T	Park	213		
2290	20	10.00	T Th	Park	124		
		08.00-09.50	W	Park	213		
2291	21	10.00	T Th	Park	124		
		10.00-11.50	W	Park	213		
2292	22	10.00	T Th	Park	124		
		12.00-01.50	Th	Park	213		
2293	23	10.00	T Th	Park	124		
		08.00-09.50	F	Park	213		
2294	24	10.00	T Th	Park	124		
		10.00-11.50	F	Park	213		
2295	25	02.00	M W	Park	124		
		04.00-05.50	M	Park	200		
2296	26	02.00	M W	Park	124		
		02.00-03.50	T	Park	200		
2297	27	02.00	M W	Park	124		
		12.00-01.50	W	Park	200		
2298	28	02.00	M W	Park	124		
		04.00-05.50	W	Park	213		
2299	29	02.00	M W	Park	124		
		12.00-01.50	Th	Park	200		
2300	30	02.00	M W	Park	124		
		02.00-03.50	F	Park	213		
2301	31	02.00	M W	Park	124		
		08.00-09.50	T	Park	200		
2302	32	02.00	M W	Park	124		
		08.00-09.50	Th	Park	200		
2303	33	02.00	M W	Park	124		
		10.00-11.50	T	Park	213		
2304	34	02.00	M W	Park	124		
		10.00-11.50	Th	Park	213		
2305	35	02.00	M W	Park	124		
		02.00-03.50	T	Park	213		
2306	36	02.00	M W	Park	124		
		12.00-01.50	W	Park	213		
115 BIOLOGY 03.0 Cr							
0713	1	09.00	T Th	Lawson	161	Peterson	
		10.00-11.50	T	LS II	423		
0714	2	09.00	T Th	Lawson	161		
		02.00-03.50	M	LS II	423		
0715	3	09.00	T Th	Lawson	161	Peterson	
		06.00-07.50 pm	M	LS II	423		
0716	4	09.00	T Th	Lawson	161	Peterson	
		12.00-01.50	W	LS II	423		
0717	5	09.00	T Th	Lawson	161	Peterson	
		02.00-03.50	W	LS II	423		
0718	6	09.00	T Th	Lawson	161	Peterson	
		04.00-05.50	T	LS II	423		
0719	7	11.00	T Th	Tech A	111	Tindall	
		04.00-05.50	M	LS II	423		
0720	8	11.00	T Th	Tech A	111	Tindall	
		06.00-07.50 pm	T	LS II	423		
0721	9	11.00	T Th	Tech A	111	Tindall	
		12.00-01.50	Th	LS II	423		
0722	10	11.00	T Th	Tech A	111	Tindall	
		02.00-03.50	Th	LS II	423		
0723	11	11.00	T Th	Tech A	111	Tindall	
		10.00-11.50	F	LS II	423		
0724	12	11.00	T Th	Tech A	111	Tindall	
		10.00-11.50	W	LS II	423		
0725	13	01.00	M W	Lawson	171	Bissing	
		12.00-01.50	F	LS II	423		

0726	14	01.00	M	W	Lawson	171	Bissing
		04.00-05.50		W	LS II	423	
0727	15	01.00	M	W	Lawson	171	Bissing
		06.00-07.50 pm		W	LS II	423	
0728	16	01.00	M	W	Lawson	171	Bissing
		02.00-03.50		T	LS II	423	
0729	17	01.00	M	W	Lawson	171	Bissing
		04.00-05.50		Th	LS II	423	
0730	18	01.00	M	W	Lawson	171	Bissing
		08.00-09.50		W	LS II	423	
0731	19	02.00	T	Th	Tech A	111	Peterson
		12.00-01.50		M	LS II	423	
0732	20	02.00	T	Th	Tech A	111	Peterson
		03.00-09.50		T	LS II	423	
0733	21	02.00	T	Th	Tech A	111	Peterson
		12.00-01.50		T	LS II	423	
0734	22	02.00	T	Th	Tech A	111	Peterson
		08.00-09.50		Th	LS II	423	
0735	23	02.00	T	Th	Tech A	111	Peterson
		10.00-11.50		Th	LS II	423	
0736	24	02.00	T	Th	Tech A	111	Peterson
		08.00-09.50		F	LS II	423	

125 SYSTEMS NATURE-WRLD

0100	1	03.35-04.50	T	Th	Tech A	111	
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202 SPACE SCI-ASTRONOMY

3581	1	01.00	M	W	F	Lawson	141	Gruber B
		Evening observation hrs?tba-?nkrs				C 405/	Roof	
3582	2	01.00	M	W	F	Lawson	141	Gruber B
		Evening observation hrs?tba-?nkrs				C 405/	Roof	
3583	3	01.00	M	W	F	Lawson	141	Gruber B
		Evening Observation Hrs?tba-?nkrs				C 405/	Roof	
3584	4	02.00	M	W	F	Lawson	161	Zitter R
		Evening Observation Hrs?tba-?nkrs				C 405/	Roof	
3585	5	02.00	M	W	F	Lawson	161	Zitter R
		Evening Observation Hrs?tba-?nkrs				C 405/	Roof	
3586	6	02.00	M	W	F	Lawson	161	Zitter R
		Evening Observation Hrs?tba-?nkrs				C 405/	Roof	

208 LAB EXPER IN PHSL

Prereq: Concurrent enrollment in GSA 209

3637	1	08.00-09.50		F	LS II	146	
3638	2	08.00-09.50		W	LS II	146	
3639	3	08.00-09.50		T	LS II	146	
3640	4	08.00-09.50		Th	LS II	146	
3641	5	11.00-12.50		F	LS II	146	
3642	6	11.00-12.50		T	LS II	146	
3643	7	11.00-12.50		Th	LS II	146	Nekola M
3644	8	11.00-12.50		W	LS II	146	Nekola M
3645	9	12.00-01.50		M	LS II	146	
3646	10	02.00-03.50		W	LS II	146	
3647	11	02.00-03.50		Th	LS II	146	
3648	12	02.00-03.50		T	LS II	146	
3649	13	03.00-04.50		M	LS II	146	

209 PRINCIPLES OF PHSL

Prereq: A background in biological science recommended

3650	1	08.00	M	W	F	Lawson	141	Freund
3651	2	11.00-12.15	T	Th		Park	124	
3652	3	12.00	M	W	F	Lawson	141	Gass G

220 SURVIVAL OF MAN

0101	1	09.00	T	Th	Lawson	141	Stucky D
		10.00		F	Ag	222	
0102	2	09.00	T	Th	Lawson	141	
		01.00		F	Ag	150	
0103	3	09.00	T	Th	Lawson	141	
		11.00		F	Ag	154	
0104	4	09.00	T	Th	Lawson	141	
		09.00		F	Wham	321	
0105	5	09.00	T	Th	Lawson	141	
		09.00		F	Wham	303	
0106	6	09.00	T	Th	Lawson	141	
		09.00		F	Nkrs C	118	
0107	7	09.00	T	Th	Lawson	141	
		08.00		T	Ag	222	
0108	8	09.00	T	Th	Lawson	141	
		11.00		T	Pull	39	
0109	9	09.00	T	Th	Lawson	141	
		01.00		T	Ag	170	
0110	10	09.00	T	Th	Lawson	141	
		02.00		T	Tech D	131	
0111	11	09.00	T	Th	Lawson	141	
		10.00		W	Ag	152	

0112	12	09.00		T	Th	Lawson	141
		11.00			Th	Faner	1006
0113	13	09.00		T	Th	Lawson	141
		03.00		T		Ag	224
0114	14	09.00		T	Th	Lawson	141
		10.00			W	Ag	220
0115	15	09.00		T	Th	Lawson	141
		10.00			F	Ag	148
0116	16	11.00		T	Th	Lawson	121
		03.00		M		Lawson	121
0117	17	11.00		T	Th	Lawson	121
		03.00		M		Lawson	121
0118	18	11.00		T	Th	Lawson	121
		03.00		M		Lawson	121

221 SURVIVAL OF MAN

0119	1	02.00		T	Th	Lawson	141
		09.00			W	Tech A	310
0120	2	02.00		T	Th	Lawson	141
		02.00			F	Pull	310
0121	3	02.00		T	Th	Lawson	141
		11.00			Th	Ag	152
0122	4	02.00		T	Th	Lawson	141
		12.00			Th	Pull	41
0123	5	02.00		T	Th	Lawson	141
		02.00			W	Pull	310
0124	6	02.00		T	Th	Lawson	141
		01.00			W	Wham	112
0125	7	02.00		T	Th	Lawson	141
		01.00		T		Pull	119
0126	8	02.00		T	Th	Lawson	141
		02.00			F	Ag	144
0127	9	02.00		T	Th	Lawson	141
		01.00			Th	Pull	35
0128	10	02.00		T	Th	Lawson	141
		04.00			W	Pull	35
0129	11	03.00		T	Th	Lawson	141
		09.00			W	Tech A	420
0130	12	03.00		T	Th	Lawson	141
		01.00			F	Ag	154
0131	13	03.00		T	Th	Lawson	141
		10.00			Th	Faner	2365
0132	14	03.00		T	Th	Lawson	141
		11.00			F	Ag	150
0133	15	03.00		T	Th	Lawson	141
		12.00			M	Pull	208
0134	16	03.00		T	Th	Lawson	141
		04.00			W	Ag	148
0135	17	03.00		T	Th	Lawson	141
		11.00			F	Ag	170
0136	18	03.00		T	Th	Lawson	141
		03.00			W	Pull	35
0137	19	03.00		T	Th	Lawson	141
		02.00			F	Ag	170
0138	20	03.00		T	Th	Lawson	141
		03.00			W	Ag	154

230 ENERGY & THE FUTURE

0139	1	10.00		M	W	F	Tech A	111	Petrie & Watson
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240 ECOLOGY AND MAN

0763	1	10.00		M	W	F	Wham	308	Voigt
0764	2	11.00		M	W	F	Lawson	121	Verduin
0765	3	01.00		M	W	F	Lawson	121	Verduin

302 PSYCHOBIOLOGY

3833	1	03.00		M	W	F	Lawson	141	Baez L
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303 FERN,TREE,WILD FLWR

0766	1	09.00			T	LS I	133	Mohlenbrock R
		08.00-09.50		M	W	Green	101	
0767	2	09.00			T	LS I	133	Mohlenbrock R
		10.00-11.50		M	W	Green	101	
0768	3	09.00			T	LS I	133	Mohlenbrock R
		01.00-02.50		M	W	Green	101	
0769	4	09.00			T	LS I	133	Mohlenbrock R
		03.00-04.50		M	W	Green	101	
0770	5	09.00			T	LS I	133	Mohlenbrock R
		10.00-11.50		T	Th	Green	101	
0771	6	09.00			T	LS I	133	Mohlenbrock R
		01.00-02.50		T	Th	Green	101	
0772	7	09.00			T	LS I	133	Mohlenbrock R
		03.00-04.50		T	Th	Green	101	

312 CONS OF NATURAL RES							03.0 Cr	
4637	1	09.00	M W F	Lawson	171	Lefebvre E		
313 EVOLUTION							02.0 Cr	
4638	1	02.00	T Th	Ag	166	Stains H		
322 EARTHS MIN RESOURCE							03.0 Cr ¹	
2307	1	08.00	T Th	Park	111	Harris S		
		08.00-09.50	W	Park	112			
2308	2	08.00	T Th	Park	111	Harris S		
		08.00-09.50	F	Park	112			
324 WATER-FRIEND& ENEMY							03.0 Cr ¹	
2309	1	10.00	M W F	Park	204	Ritter D		
330 WEATHER							03.0 Cr ¹	
2229	1	To be arranged						
Report to Self- Instr Center Morris Library Rm 112								
2230	2	09.00-10.50		F	Lawson	161	Jones D	
		09.00-10.50	T		Faner	2522		
2231	3	09.00-10.50		F	Lawson	161	Jones D	
		09.00-10.50	W		Faner	2522		
2232	4	09.00-10.50		F	Lawson	161	Jones D	
		09.00-10.50	Th		Faner	2522		
356 CREAT IN SCI & TECH							03.0 Cr	
1748	1	09.00	M W F	Lawson	231			
361 ACOUSTICS OF MUSIC							03.0 Cr	
3046	1	09.00	M W F	Lawson	151	Gordon		

General Studies Area B—Man's
Social Inheritance and Social
Responsibilities (GSB)

103 GEOG OF MANS ENVIR 03.0 Cr									
2233	1	11.00	M W F	Lawson	151	Arey,Horsley & Liebe			
2234	2	03.00	M W F	Lawson	151	Arey,Lieber & Horsle			
104 MAN & HIS WRLD-ANTH 03.0 Cr									
0452	1	12.00	M W F	Wham	105	MacIachlan B			
0453	2	12.35-01.50	T Th	Lawson	171	Maring J			
0454	3	02.00	M W F	Wham	105	Maring E			
105 CONTEMPORARY WORLD 03.0 Cr ¹									
2561	1	09.00	M W F	Lawson	201	Oday E			
2562	2	11.00	M W F	Lawson	161	Gold R			
2563	3	12.35-01.50	T Th	Faner	1005	Dotson J			
2564	4	02.00-03.15	T Th	Lawson	171	Mcfarlin H			
109 INTRO-BLACK AMERICA 03.0 Cr									
0744	1	09.35-10.50	T Th	H Ec	106	Cox B			
0745	2	11.00-12.15	T Th	H Ec	203	Cox B			
0746	3	02.00	M W F	H Ec	106	Sturgis G			
112 COMPAR ECON SYSTEMS 03.0 Cr ¹									
1430	1	12.35-01.50	T Th	Wham	105	Ford A			
125 SYSTEMS NATURE-WRLD 03.0 Cr									
0140	1	03.35-04.50	T Th	Tech A	111				
160 MASS COMM IN SOC 02.0 Cr									
2663	1	11.00	T Th	Lawson	141				
202 INTRO TO PSYCHOLOGY 03.0 Cr									
3834	1	11.00	M W	Lawson	141	Carrier N			
		08.00-09.50	Th	Pull	119				
3835	2	11.00	M W	Lawson	141	Carrier N			
		10.00-11.50	Th	Pull	119				
3836	3	11.00	M W	Lawson	141	Carrier N			
		12.00-01.50	Th	Pull	119				
3837	4	11.00	M W	Lawson	141	Carrier N			
		02.00-03.50	Th	Pull	119				
3838	5	11.00	M W	Lawson	141	Carrier N			
		04.00-05.50	Th	Pull	119				
3839	6	11.00	M W	Lawson	141	Carrier N			
		06.00-07.50 pm	Th	Pull	119				
3840	7	11.00	M W	Lawson	141	Carrier N			
		08.00-09.50	F	Pull	119				
3841	8	11.00	M W	Lawson	141	Carrier N			
		10.00-11.50	F	Pull	119				
3842	9	11.00	M W	Lawson	141	Carrier N			
		12.00-01.50	F	Pull	119				
3843	10	11.00	M W	Lawson	141	Carrier N			
		02.00-03.50	F	Pull	119				

3844	11	04.00	M W	Lawson	141	Carrier N			
		08.00-09.50	Th	Pull	118				
3845	12	04.00	M W	Lawson	141	Carrier N			
		10.00-11.50	Th	Pull	118				
3846	13	04.00	M W	Lawson	141	Carrier N			
		12.00-01.50	Th	Pull	118				
3847	14	04.00	M W	Lawson	141	Carrier N			
		02.00-03.50	Th	Pull	118				
3848	15	04.00	M W	Lawson	141	Carrier N			
		04.00-05.50	Th	Pull	118				
3849	16	04.00	M W	Lawson	141	Carrier N			
		06.00-07.50 pm	Th	Pull	118				
3850	17	04.00	M W	Lawson	141	Carrier N			
		08.00-09.50	F	Pull	118				
3851	18	04.00	M W	Lawson	141	Carrier N			
		10.00-11.50	F	Pull	118				
3852	19	04.00	M W	Lawson	141	Carrier N			
		12.00-01.50	F	Pull	118				
3853	20	04.00	M W	Lawson	141	Carrier N			
		02.00-03.50	F	Pull	118				
3854	21	06.00-07.50 pm	W	Lawson	141				
		08.00-09.50	Th	Pull	39				
3855	22	06.00-07.50 pm	W	Lawson	141				
		10.00-11.50	Th	Pull	39				
3856	23	06.00-07.50 pm	W	Lawson	141				
		12.00-01.50	Th	Pull	39				
3857	24	06.00-07.50 pm	W	Lawson	141				
		02.00-03.50	Th	Pull	39				
3858	25	06.00-07.50 pm	W	Lawson	141				
		04.00-05.50	Th	Pull	39				
3859	26	06.00-07.50 pm	W	Lawson	141				
		06.00-07.50 pm	Th	Pull	39				
3860	27	06.00-07.50 pm	W	Lawson	141				
		08.00-09.50	F	Pull	39				
3861	28	06.00-07.50 pm	W	Lawson	141				
		10.00-11.50	F	Pull	39				
3862	29	06.00-07.50 pm	W	Lawson	141				
		12.00-01.50	F	Pull	39				
3863	30	06.00-07.50 pm	W	Lawson	141				
		02.00-03.50	F	Pull	39				
203 THE SOC PERSPECTIVE 04.0 Cr									
4265	1	09.00	TWThF	Wham	105	Gaston			
4266	2	11.00	T Th	Ag	102	Gaston			
		11.00	W F	Wham	105				
4267	3	01.00	TWThF	Lawson	161	Gaston			
4268	4	07.35-09.15 pm	T Th	Nkrs C	118	Patterson			
206 APPLIED CHILD DEVEL 03.0 Cr									
0962	1	09.00	M W F	H Ec	140B	Gulley B			
0963	2	10.00	M W F	H Ec	140B	Gulley B			
0964	3	01.00	M W F	Tech A	111				
0965	4	02.00	M W F	H Ec	140B				
207 CONTEMP POLIT IDEOL 03.0 Cr ¹									
3741	1	12.35-01.50	T Th	Pull	227	Kamarasy E			
3742	2	03.00	M W F	Faner	1004	Kamarasy E			
211 CONTEMPORARY ECON 03.0 Cr ¹									
1431	1	09.35-10.50	T Th	Lawson	171	Fryman R			
1432	2	02.00-03.15	T Th	Wham	105	Fryman R			
212 AMER GOVT & POLITIC 04.0 Cr ¹									
3743	1	09.00	M F	Wham	112	Chou I			
		09.00	T Th	Wham	302				
3744	2	10.00	M W F	Wham	105	Mason R			
		08.00	T	Tech A	308				
3745	3	10.00	M W F	Wham	105	Mason R			
		08.00	Th	Pull	229				
3746	4	10.00	M W F	Wham	105	Mason R			
		09.00	T	Pull	119				
3747	5	10.00	M W F	Wham	105	Mason R			
		09.00	Th	Ag	152				
3748	6	10.00	M W F	Wham	105	Mason R			
		09.00	Th	H Ec	202				
3749	7	10.00	M W F	Wham	105	Mason R			
		10.00	T	Pull	39				
3750	8	10.00	M W F	Wham	105	Mason R			
		12.00	T	Tech A	310				
3751	9	10.00	M W F	Wham	105	Mason R			
		10.00	Th	Ag	222				
3752	10	10.00	M W F	Wham	105	Mason R			
		11.00	T	Pull	41				
3753	11	10.00	M W F	Wham	105	Mason R			
		11.00	Th	Wham	205				

3754	12	11.00	M WThF	Avtech	116	Derge D
Above section restricted to aviation technology stu						
3755	13	12.00	MT Th F	Ag	154	Garner W
3756	14	01.00	M W F	Wham	105	Nelson R
		01.00	T	Pull	118	
3757	15	01.00	M W F	Wham	105	Nelson R
		01.00	T	Faner	1028	
3758	16	01.00	M W F	Wham	105	Nelson R
		01.00	Th	H Ec	104	
3759	17	01.00	M W F	Wham	105	Nelson R
		02.00	T	Pull	118	
3760	18	01.00	M W F	Wham	105	Nelson R
		02.00	T	Pull	39	
3761	19	01.00	M W F	Wham	105	Nelson R
		02.00	Th	LS II	430	
3762	20	03.00	MT Th F	Ag	154	Stauber L
3763	21	05.45-07.25	T Th	Pull	227	Dale R

220 SURVIVAL OF MAN						
0141	1	09.00	T Th	Lawson	141	
		10.00	F	Ag	222	
0142	2	09.00	T Th	Lawson	141	
		01.00	F	Ag	150	
0143	3	09.00	T Th	Lawson	141	
		11.00	F	Ag	154	
0144	4	09.00	T Th	Lawson	141	
		09.00	F	Wham	321	
0145	5	09.00	T Th	Lawson	141	
		09.00	F	Wham	303	
0146	6	09.00	T Th	Lawson	141	
		09.00	F	Nkrs C	118	
0147	7	09.00	T Th	Lawson	141	
		08.00	T	Ag	222	
0148	8	09.00	T Th	Lawson	141	
		11.00	T	Pull	39	
0149	9	09.00	T Th	Lawson	141	
		01.00	T	Ag	170	
0150	10	09.00	T Th	Lawson	141	
		02.00	T	Tech D	131	
0151	11	09.00	T Th	Lawson	141	
		10.00	W	Ag	152	
0152	12	09.00	T Th	Lawson	141	
		11.00	Th	Faner	1006	
0153	13	09.00	T Th	Lawson	141	
		03.00	T	Ag	224	
0154	14	09.00	T Th	Lawson	141	
		10.00	W	Ag	220	
0155	15	09.00	T Th	Lawson	141	
		10.00	F	Ag	148	
0156	16	11.00	T Th	Lawson	121	
		03.00	M	Lawson	121	
0157	17	11.00	T Th	Lawson	121	
		03.00	M	Lawson	121	
0158	18	11.00	T Th	Lawson	121	
		03.00	M	Lawson	121	

221 SURVIVAL OF MAN						
0159	1	02.00	T Th	Lawson	141	
		09.00	W	Tech A	310	
0160	2	02.00	T Th	Lawson	141	
		02.00	F	Pull	310	
0161	3	02.00	T Th	Lawson	141	
		11.00	Th	Ag	152	
0162	4	02.00	T Th	Lawson	141	
		12.00	Th	Pull	41	
0163	5	02.00	T Th	Lawson	141	
		02.00	W	Pull	310	
0164	6	02.00	T Th	Lawson	141	
		01.00	W	Wham	112	
0165	7	02.00	T Th	Lawson	141	
		01.00	T	Pull	119	
0166	8	02.00	T Th	Lawson	141	
		02.00	F	Ag	144	
0167	9	02.00	T Th	Lawson	141	
		01.00	Th	Pull	35	
0168	10	02.00	T Th	Lawson	141	
		04.00	W	Pull	35	
0169	11	03.00	T Th	Lawson	141	
		09.00	W	Tech A	420	
0170	12	03.00	T Th	Lawson	141	
		01.00	F	Ag	154	
0171	13	03.00	T Th	Lawson	141	
		10.00	Th	Faner	2365	

03.0 Cr

03.0 Cr

0172	14	03.00	T Th	Lawson	141	
		11.00	F	Ag	150	
0173	15	03.00	T Th	Lawson	141	
		12.00	M	Pull	208	
0174	16	03.00	T Th	Lawson	141	
		04.00	W	Ag	148	
0175	17	03.00	T Th	Lawson	141	
		11.00	F	Ag	170	
0176	18	03.00	T Th	Lawson	141	
		03.00	W	Pull	35	
0177	19	03.00	T Th	Lawson	141	
		02.00	F	Ag	170	
0178	20	03.00	T Th	Lawson	141	
		03.00	W	Ag	154	

231 AMERICAN ED SYSTEMS						
1625	1	09.00	T Th	Wham	303	Bach J

250 COMPAR GOVT & POLIT						
3764	1	09.00	M W F	Faner	1026	Hardenbergh W
3765	2	09.35-10.50	T Th	Wham	205	Stauber L
3766	3	12.00	M W F	Pull	215	Hardenbergh W

255 REG GEOG OF U S						
2235	1	01.00	T Th	Lawson	121	Christensen

270 INTRO-INTERNATL REL						
3767	1	10.00	M W F	Faner	1222	Turley W
3768	2	11.00-12.15	T Th	Faner	1230	Chou I
3769	3	01.00	M W F	Faner	1230	Landecker M

299D HIGH PRICE OF FOOD						
0405	1	09.00	T Th	Ag	168	Cusumano

300 ORGIN-AM 1492-1877						
2565	1	09.35-10.50	T Th	Nkrs B	440	Fladeland B
2566	2	10.00	M W F	Wham	302	Murphy J
2567	3	12.35-01.50	T Th	Wham	308	Conrad D
2568	4	02.00	M W F	Faner	1326	Batinski M

301 MOD AM 1877-PRESENT						
2569	1	10.00	M W F	Pull	34	Werlich D
2570	2	12.00	M W F	Park	124	Murphy J

305 PERSONAL FINANCE						
2091	1	10.00	M W F	Lawson	231	
2092	2	11.00	M W F	Park	124	
2093	3	02.00	M W F	Lawson	231	

310 CURRENT EVENTS						
2664	1	11.00	F	Lawson	141	

321 SOC OF INDIVIDUAL						
4269	1	10.00	T Th	Lawson	151	Rosset
		08.00	F	Wham	305	
4270	2	10.00	T Th	Lawson	151	Rosset
		12.00	F	Wham	203	
4271	3	01.00	M W F	Wham	321	
4272	4	06.30-09.00 pm	W	Wham	328	

325 RACE & MINORITY REL						
4273	1	10.00	M W F	Wham	312	Brooks M

330 LANGUAGE & BEHAVIOR						
2726	1	10.00	M W F	Wham	112	Gilbert G

341 MARRIAGE-SOC INSTI						
4274	1	09.00	M W F	Faner	1006	Hendrix
4275	2	12.00	M W F	Wham	208	Hendrix
4276	3	02.00	M W F	Wham	205	Hendrix

346 CONSUM CHOICE-BEHAV						
2070	1	10.00	T Th	H Ec	202	Myers C

General Studies Area C—Man's Insight and Appreciations (GSC)

100 MUSIC UNDERSTANDING						
3047	1	08.00	M W	Lawson	131	Mchugh
3048	2	09.00	T Th	Lawson	131	Bakker
3049	3	10.00	M W	Lawson	131	Bakker
3050	4	11.00	T Th	Lawson	131	Grizzell
3051	5	12.00	M W	Lawson	131	Klausmeier
3052	6	01.00	M W	Lawson	131	Kageff
3053	7	04.00	M W	Lawson	131	Klausmeier

101 INTRODUCTION TO ART						
0509	1	10.00	T Th	Lawson	141	Wood D
		08.00-09.50	M	Allyn	6	

¹Elective Pass/Fail ²Mandatory Pass/Fail

0510	2	10.00	T Th	Lawson	141	Wood D
		10.00-11.50	M	Allyn	6	
0511	3	10.00	T Th	Lawson	141	Wood D
		12.00-01.50	M	Allyn	6	
0512	4	10.00	T Th	Lawson	141	Wood D
		02.00-03.50	M	Allyn	6	
0513	5	10.00	T Th	Lawson	141	Wood D
		04.00-05.50	M	Allyn	6	
0514	6	10.00	T Th	Lawson	141	Wood D
		06.00-07.50 pm	M	Allyn	6	
0515	7	10.00	T Th	Lawson	141	Wood D
		02.00-03.50	T	Allyn	6	
0516	8	10.00	T Th	Lawson	141	Wood D
		04.00-05.50	T	Allyn	6	
0517	9	10.00	T Th	Lawson	141	Wood D
		06.00-07.50 pm	T	Allyn	6	
0518	10	10.00	T Th	Lawson	141	Wood D
		08.00-09.50	W	Allyn	6	
0519	11	10.00	T Th	Lawson	141	Wood D
		10.00-11.50	W	Allyn	6	
0520	12	10.00	T Th	Lawson	141	Wood D
		12.00-01.50	W	Allyn	6	
0521	13	01.00	T Th	Lawson	141	Wood D
		02.00-03.50	W	Allyn	6	
0522	14	01.00	T Th	Lawson	141	Wood D
		04.00-05.50	W	Allyn	6	
0523	15	01.00	T Th	Lawson	141	Wood D
		05.00-06.50	W	Allyn	6	
0524	16	01.00	T Th	Lawson	141	Wood D
		02.00-03.50	Th	Allyn	6	
0525	17	01.00	T Th	Lawson	141	Wood D
		04.00-05.50	Th	Allyn	6	
0526	18	01.00	T Th	Lawson	141	Wood D
		06.00-07.50 pm	Th	Allyn	6	
0527	19	01.00	T Th	Lawson	141	Wood D
		08.00-09.50	F	Allyn	6	
0528	20	01.00	T Th	Lawson	141	Wood D
		10.00-11.50	F	Allyn	6	
0529	21	01.00	T Th	Lawson	141	Wood D
		12.00-01.50	F	Allyn	6	

102 PROB IN PHILOSOPHY 03.0 Cr¹

3235	1	09.00	M W F	Faner	1005	Kelly M
3236	2	10.00	M W F	Ag	216	Kelly M
3237	3	11.00	M W F	Faner	1136	Diefenbeck J
3238	4	12.00	M W F	Faner	1005	Clarke D
3239	5	12.00	M W F	H Ec	206	
3240	6	12.35-01.50	T Th	Faner	1136	Frondizi R
3241	7	07.35-09.00 pm	T Th	H Ec	102	

104 MORAL DECISION 03.0 Cr¹

3242	1	08.00	M W F	H Ec	102	
3243	2	09.00	T Th	Lawson	151	Howie J
		01.00	T	Pull	39	
3244	3	09.00	T Th	Lawson	151	Howie J
		11.00	Th	Pull	208	
3245	4	09.00	T Th	Lawson	151	Howie J
		10.00	F	Wham	205	
3246	5	09.00	T Th	Lawson	151	Howie J
		08.00	F	Wham	312	
3247	6	09.00	T Th	Lawson	151	Howie J
		02.00	W	H Ec	104	
3248	7	09.00	T Th	Lawson	151	Howie J
		02.00	Th	Pull	211	
3249	8	09.00	T Th	Lawson	151	Howie J
		10.00	W	Ag	222	
3250	9	09.00	T Th	Lawson	151	Howie J
		02.00	Th	Pull	41	
3251	10	12.00	T Th	Lawson	161	Schlipp
		11.00	F	Faner	1222	
3252	11	12.00	T Th	Lawson	161	Schlipp
		08.00	Th	Pull	41	
3253	12	12.00	T Th	Lawson	161	Schlipp
		11.00	Th	Faner	2010	
3254	13	12.00	T Th	Lawson	161	Schlipp
		03.00	W	Pull	215	
3255	14	12.00	T Th	Lawson	161	Schlipp
		12.00	F	H Ec	104	
3256	15	12.00	T Th	Lawson	161	Schlipp
		02.00	F	H Ec	104	
3257	16	12.00	T Th	Lawson	161	Schlipp
		01.00	W	Park	309	

3258	17	12.00	T Th	Lawson	161	Schlipp
		11.00	W	Faner	2365	
3259	18	03.00	M W F	Wham	112	

107 MAN, LEISURE & REC 02.0 Cr

4009	1	09.00	M W	Nkrs B	440	
4010	2	10.00	T Th	Wham	105	

109 INTRO-BLACK AMERICA 03.0 Cr

0747	1	09.35-10.50	T Th	H Ec	106	Cox B
0748	2	11.00-12.15	T Th	H Ec	203	Cox B
0749	3	02.00	M W F	H Ec	106	Sturgis G

200 ORAL INTERP OF LIT 03.0 Cr¹

4378	1	08.00	M W F	Comm	1020	
4379	2	09.00	M W F	Comm	1020	
4380	3	10.00	M W F	Comm	1020	
4381	4	11.00	M W F	Comm	1020	
4382	5	12.00	M W F	Comm	1020	
4383	6	12.35-01.50	T Th	Comm	1020	

Above section- Topic:- Childrens Literature

4384	7	01.00	M W F	Comm	1020	
4385	8	02.00-03.15	T Th	Comm	1020	

Above section- Topic:- Childrens Literature

201 INTRO TO DRAMA 03.0 Cr¹

Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent

1819	1	08.00	M W F	H Ec	120	
1820	2	11.00	M W F	H Ec	202	
1821	3	02.00	M W F	H Ec	122	

202 INTRO TO POETRY 03.0 Cr¹

Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent

1822	1	12.00	M W F	Faner	1222	
1823	2	01.00	M W F	Pull	310	

203 INTRO TO THEATRE 03.0 Cr

4514	1	11.00	M W	Comm	1037	Straumanis A
		11.00	F	Nkrs A	156	
4515	2	11.00	M W	Comm	1037	Straumanis A
		11.00	F	Wham	321	
4516	3	11.00	M W	Comm	1037	Straumanis A
		10.00	Th	Faner	2006	
4517	4	11.00	M W	Comm	1037	Straumanis A
		10.00	Th	Wham	303	
4518	5	11.00	M W	Comm	1037	Straumanis A
		09.00	Th	Tech A	208	
4519	6	11.00	M W	Comm	1037	Straumanis A
		09.00	Th	Faner	2206	
4520	7	11.00	M W	Comm	1037	Straumanis A
		02.00	Th	Ag	116	
4521	8	11.00	M W	Comm	1037	Straumanis A
		02.00	Th	Pull	215	
4522	9	11.00	M W	Comm	1037	Straumanis A
		10.00	F	Ag	224	
4523	10	11.00	M W	Comm	1037	Straumanis A
		10.00	F	H Ec	201	

205 INNOV-CONTEMP ENVIR 03.0 Cr¹

1388	1	11.00-12.15	T Th	Lawson	171	Grosowsky
1389	2	02.00-03.15	T Th	Lawson	101	Grosowsky
1390	3	03.35-04.50	T Th	Lawson	171	Grosowsky

206 MUS-CREAT EXPR 03.0 Cr¹

3054	1	10.00	M W F	Lawson	151	Von Gunden H
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207 AESTHETICS 02.0 Cr¹

3260	1	11.00	T Th	H Ec	206	
3261	2	03.00	T Th	Lawson	161	Mcclure G

208 ELEMENTARY LOGIC 03.0 Cr¹

3262	1	08.00	M W F	H Ec	201	
3263	2	09.00	M W	Lawson	161	Schedler G
		02.00	Th	Ag	152	
3264	3	09.00	M W	Lawson	161	Schedler G
		03.00	Th	Wham	321	
3265	4	09.00	M W	Lawson	161	Schedler G
		03.00	W	Wham	321	
3266	5	09.00	M W	Lawson	161	Schedler G
		10.00	F	H Ec	102	
3267	6	09.00	M W	Lawson	161	Schedler G
		11.00	Th	Pull	211	
3268	7	09.00	M W	Lawson	161	Schedler G
		11.00	W	Pull	118	
3269	8	09.00	M W	Lawson	161	Schedler G
		12.00	Th	Wham	205	
3270	9	09.00	M W	Lawson	161	Schedler G
		01.00	F	Nkrs C	218	

3271	10	09.00	M W	Lawson	161	Schedler G	
		09.00	T	Ag	152		
3272	11	09.00	M W	Lawson	161	Schedler G	
		09.00	F	Wham	305		
3273	12	09.00	M W	Lawson	161	Schedler G	
		09.00	F	Pull	208		
3274	13	09.00	M W	Lawson	161	Schedler G	
		10.00	F	Wham	206		
3275	14	01.00	M W F	Ag	220		
3276	15	02.00	T Th	Lawson	151	Eames S	
		03.00	M	Pull	118		
3277	16	02.00	T Th	Lawson	151	Eames S	
		11.00	M	Pull	118		
3278	17	02.00	T Th	Lawson	151	Eames S	
		02.00	M	Pull	118		
3279	18	02.00	T Th	Lawson	151	Eames S	
		03.00	M	Pull	227		
3280	19	02.00	T Th	Lawson	151	Eames S	
		12.00	F	Faner	1028		
3281	20	02.00	T Th	Lawson	151	Eames S	
		10.00	F	Wham	329		
3282	21	02.00	T Th	Lawson	151	Eames S	
		09.00	M	Faner	2512		
3283	22	02.00	T Th	Lawson	151	Eames S	
		12.00	F	Wham	201		
3284	23	02.00	T Th	Lawson	151	Eames S	
		08.00	F	Ag	152		
3285	24	02.00	T Th	Lawson	151	Eames S Morris	
		09.00	F	Wham	312		
3286	25	02.00	T Th	Lawson	151	Eames S	
		08.00	F	Ag	148		
3287	26	02.00	T Th	Lawson	151	Eames S	
		01.00	F	Wham	329		
210 INTRO TO FICTION							03.0 Cr¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent							
1824	1	08.00-09.15	T Th	H Ec	102		
1825	2	09.00	M W F	Wham	205		
1826	3	09.35-10.50	T Th	Ag	148		
1827	4	10.00	M W F	Pull	41		
1828	5	11.00	M W F	Pull	35		
1829	6	12.35-01.50	T Th	Pull	318		
1830	7	01.00	M W F	Pull	35		
1831	8	02.00-03.15	T Th	Pull	229		
1832	9	03.00	M W F	H Ec	104		
1833	10	06.00-07.25 pm	M W	Tech A	322		
212 ORIENTAL HUMANITIES							03.0 Cr¹
0179	1	11.00-12.15	T Th	H Ec	118		
214 ORIENTAL PHIL							03.0 Cr¹
3288	1	02.00	M W F	Faner	1136	Liu S	
216 TYPES OF EAST REL							03.0 Cr¹
4101	1	12.35-01.50	T Th	Nkrs B	240	Bengtson D	
217 TYPES OF WEST REL							03.0 Cr¹
4102	1	11.00-12.15	T Th	Nkrs B	240	Hutch R	
221 SURVIVAL OF MAN							03.0 Cr
0180	1	02.00	T Th	Lawson	141		
		09.00	W	Tech A	310		
0181	2	02.00	T Th	Lawson	141		
		02.00	F	Pull	310		
0182	3	02.00	T Th	Lawson	141		
		11.00	Th	Ag	152		
0183	4	02.00	T Th	Lawson	141		
		12.00	Th	Pull	41		
0184	5	02.00	T Th	Lawson	141		
		02.00	W	Pull	310		
0185	6	02.00	T Th	Lawson	141		
		01.00	W	Wham	112		
0186	7	02.00	T Th	Lawson	141		
		01.00	T	Pull	119		
0187	8	02.00	T Th	Lawson	141		
		02.00	F	Ag	144		
0188	9	02.00	T Th	Lawson	141		
		01.00	Th	Pull	35		
0189	10	02.00	T Th	Lawson	141		
		04.00	W	Pull	35		
0190	11	03.00	T Th	Lawson	141		
		09.00	W	Tech A	420		
0191	12	03.00	T Th	Lawson	141		
		01.00	F	Ag	154		

0192	13	03.00	T Th	Lawson	141		
		10.00	Th	Faner	2365		
0193	14	03.00	T Th	Lawson	141		
		11.00	F	Ag	150		
0194	15	03.00	T Th	Lawson	141		
		12.00	M	Pull	208		
0195	16	03.00	T Th	Lawson	141		
		04.00	W	Ag	148		
0196	17	03.00	T Th	Lawson	141		
		11.00	F	Ag	170		
0197	18	03.00	T Th	Lawson	141		
		03.00	W	Pull	35		
0198	19	03.00	T Th	Lawson	141		
		02.00	F	Ag	170		
0199	20	03.00	T Th	Lawson	141		
		03.00	W	Ag	154		
231 GREEK CIVILIZATION							03.0 Cr¹
2147	1	02.00-03.15	T Th	Faner	1005	Obrien J	
317 RECENT AMERICAN LIT							03.0 Cr¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent							
1834	1	09.35-10.50	T Th	H Ec	306	Rudnick	
1835	2	11.00	M W F	H Ec	306	Raizis	
1836	3	12.00	M W F	Faner	1032	Piper	
1837	4	12.35-01.50	T Th	Faner	1222	Piper	
1838	5	02.00	M W F	Faner	1004	Cassidy T	
1839	6	02.00-03.15	T Th	Faner	1222	Rudnick	
1840	7	03.00	M W F	Faner	1028	Cassidy T	
325 BLACK AMER WRITERS							03.0 Cr¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent							
1841	1	12.35-01.50	T Th	H Ec	306		
330 CLASSICAL MYTHOLOGY							03.0 Cr¹
2148	1	01.00	M W	Lawson	201	Obrien	
		11.00	Th	Faner	1004		
2149	2	01.00	M W	Lawson	201	Obrien J	
		01.00	F	Pull	208		
335 THE SHORT STORY							03.0 Cr¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent							
1842	1	09.00	M W F	Pull	37	Benziger	
1843	2	11.00	M W F	H Ec	104	Schonhorn	
1844	3	11.00-12.15	T Th	Pull	318	Howell	
1845	4	01.00	M W F	H Ec	306	Schonhorn	
1846	5	02.00	M W F	H Ec	306	Lawson	
1847	6	02.00-03.15	T Th	H Ec	306	Benziger	
1848	7	03.00	M W F	Pull	37	Lawson	
349 THE CINEMA							03.0 Cr¹
1012	1	03.00-04.50	T Th	Lawson	151	Daly	
Note-- Screening Fee,\$10,not open to C&P Majors							
1013	2	06.30-09.50 pm	W	Lawson	151	Bukalski	
Note-- Screening Fee,\$10,not open to C&P Majors							
1014	3	06.30-09.50 pm	M	Lawson	151	Paine	
Note: Screening Fee \$10, not open to C&P Majors							
365 SHAKESPEARE							03.0 Cr¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent							
1849	1	10.00	M W F	Wham	201	Lamb	
1850	2	12.00	M W F	Faner	2512	Majors	
371 EVOLUTION OF JAZZ							02.0 Cr¹
3055	1	09.00	M W	Lawson	131	Lemasters	
3056	2	10.00	T Th	Lawson	131	Lemasters	
3057	3	11.00	M W	Lawson	131	Valk A	
3058	4	01.00	T Th	Lawson	131	Olsson	
3059	5	02.00	T Th	Lawson	131	Olsson	
3060	6	03.00	M W	Lawson	131		
393 STUDIES IN LIT							03.0 to 06.0 Cr¹
Prereq: GSD 101 and GSD 117, 118, or 119, or equivalent							
1851	1	10.00	M W F	Pull	35	Little J	
Topic: Women in Literature							
1852	2	02.00	M W F	Park	111	Hurley	
Topic: Modern Literature							
General Studies Area D—Organization and Communication of Ideas (GSD)							
101 ENGLISH COMPOSITION							03.0 Cr
1853	1	08.00	M W F	Allyn	103		
1854	2	08.00	M W F	H Ec	118		
1855	3	08.00	M W F	Ag	150		
1856	4	08.00	M W F	H Ec	306		

22 FALL 1977

1857	5	08.00	M W F	Pull	37
1858	6	08.00	M W F	Pull	41
1859	7	08.00	M W F	Faner	1226
1860	8	08.00	M W F	Pull	229
1861	9	08.00	M W F	Wham	317
1862	10	08.00	M W F	Faner	1222
1863	11	08.00	M W F	H Ec	122
1864	12	08.00	M W F	Faner	2463
1865	13	09.00	M W F	Pull	229
1866	14	09.00	M W F	Pull	211
1867	15	09.00	M W F	H Ec	104
1868	16	09.00	M W F	H Ec	102
1869	17	09.00	M W F	Park	301
1870	18	09.00	M W F	H Ec	306
1871	19	10.00	M W F	Faner	2463
1872	20	10.00	M W F	Pull	37
1873	21	10.00	M W F	Ag	144
1874	22	10.00	M W F	Ag	150
1875	23	10.00	M W F	Allyn	103
1876	24	10.00	M W F	Ag	154
1877	25	10.00	M W F	Avtech	118

Above section restr to AVTECH students

1878	26	10.00	M W F	H Ec	306
1879	27	11.00	M W F	Faner	2463
1880	28	11.00	M W F	Pull	229
1881	29	11.00	M W F	Pull	310
1882	30	11.00	M W F	Wham	307
1883	31	11.00	M W F	Allyn	103
1884	32	11.00	M W F	Pull	318
1885	33	11.00	M W F	Ag	220
1886	34	11.00	M W F	Wham	328
1887	35	11.00	M W F	Ag	148
1888	36	12.00	M W F	Wham	317
1889	37	12.00	M W F	Faner	2463
1890	38	12.00	M W F	Pull	37
1891	39	12.00	M W F	Wham	305
1892	40	12.00	M W F	H Ec	122
1893	41	12.00	M W F	Wham	329
1894	42	12.00	M W F	Wham	328
1895	43	12.00	M W F	Wham	319
1896	44	12.00	M W F	Pull	211
1897	45	12.00	M W F	H Ec	306
1898	46	12.00	M W F	H Ec	201
1899	47	12.00	M W F	H Ec	102
1900	48	12.00	M W F	Pull	229
1901	49	01.00	M W F	Faner	2463
1902	50	01.00	M W F	Wham	206
1903	51	01.00	M W F	Pull	229
1904	52	01.00	M W F	Wham	328
1905	53	01.00	M W F	Pull	215
1906	54	01.00	M W F	Ag	224
1907	55	01.00	M W F	Pull	318
1908	56	01.00	M W F	Pull	211
1909	57	01.00	M W F	Pull	41
1910	58	01.00	M W F	Ag	152
1911	59	01.00	M W F	H Ec	102
1912	60	01.00	M W F	Avtech	116

Above section restr to AVTECH students

1913	61	01.00	M W F	Park	301
1914	62	01.00	M W F	Pull	37
1915	63	02.00	M W F	Faner	2463
1916	64	02.00	M W F	H Ec	118
1917	65	02.00	M W F	Wham	319
1918	66	02.00	M W F	Pull	211
1919	67	02.00	M W F	Pull	208
1920	68	02.00	M W F	Pull	215
1921	69	02.00	M W F	Wham	329
1922	70	02.00	M W F	Faner	1026
1923	71	02.00	M W F	Pull	318
1924	72	02.00-03.15	M W	Avtech	118

Above section restr to AVTECH students

1925	73	02.00	M W F	Ag	116
1926	74	03.00	M W F	Ag	222
1927	75	03.00	M W F	Faner	2463
1928	76	03.00	M W F	Pull	229
1929	77	03.00	M W F	Faner	1222
1930	78	03.00	M W F	H Ec	106
1931	79	03.00	M W F	Pull	211
1932	80	03.00	M W F	H Ec	118
1933	81	03.00	M W F	H Ec	102
1934	82	03.00	M W F	Wham	329

1935	83	03.00	M W F	Pull	208
1936	84	03.00	M W F	Allyn	103
1937	85	04.00	M W F	Faner	1026
1938	86	04.00	M W F	Faner	2463
1939	87	04.00	M W F	Faner	1028
1940	88	04.00	M W F	Faner	1222
1941	89	04.00	M W F	Faner	1224
1942	90	04.00	M W F	Faner	1030
1943	91	06.00-07.25 pm	M W	Wham	326
1944	92	06.00-07.25 pm	M W	H Ec	306
1945	93	06.00-07.25 pm	M W	Pull	229
1946	94	06.00-07.25 pm	M W	Allyn	103
1947	95	06.00-07.25 pm	M W	Pull	227
1948	96	07.35-09.00 pm	M W	Pull	229
1949	97	07.35-09.00 pm	M W	Allyn	103
1950	98	07.35-09.00 pm	M W	Wham	326
1951	99	07.35-09.00 pm	M W	Pull	41
1952	101	08.00	M W F	Faner	1028
1953	102	09.00	M W F	Pull	318
1954	103	09.00	M W F	Comm	1006
1955	104	10.00	M W F	Comm	2012
1956	105	11.00	M W F	Pull	316
1957	106	11.00	M W F	Pull	37
1958	107	12.00	M W F	H Ec	118
1959	108	01.00	M W F	Pull	316
1960	109	02.00	M W F	Pull	316
1961	110	02.00	M W F	Pull	37

104 GRAMMAR IN LANGUAGE

02.0 Cr

2727	1	11.00	T Th	Lawson	151	Redden J
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106 ELEMENTARY ALGEBRA

00.0 Cr

2781	1	11.00-12.15	T Th	Nkrs C	218
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Above sect restr to Developmental Skills Program

2782	2	12.35-01.50	T Th	Ag	150
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Above sect restr to Developmental Skills Program

2783	3	02.00-03.15	T Th	Ag	222
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2784	4	02.00-03.15	T Th	Tech A	308
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Above sect restr to Developmental Skills Program

2785	5	03.35-04.50	T Th	Ag	222
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2786	6	03.35-04.50	T Th	Ag	150
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2787	7	06.00-07.15 pm	T Th	Tech A	322
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Above sect restr to Developmental Skills Program

2788	8	06.00-07.15 pm	T Th	Tech A	308
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107 INTERMED ALGEBRA

04.0 Cr

Prereq: One yr of high school algebra or GSD 106

2789	1	08.00	T Th	Nkrs B	240
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		08.00	M W	Ag	154
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2790	2	08.00	T Th	Nkrs B	240
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		08.00	M W	Tech A	420
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2791	3	08.00	T Th	Nkrs B	240
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		08.00	M W	Faner	1228
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2792	4	08.00	T Th	Nkrs B	240
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		08.00	M W	Ag	224
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2793	5	08.00	T Th	Nkrs B	240
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		08.00	M W	Tech A	310
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2794	6	08.00	T Th	Nkrs B	240
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		08.00	M W	Ag	152
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2795	7	09.00	MT Th F	Tech A	310
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2796	8	10.00	T Th	Tech A	308
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		10.00	W F	Lingle	125
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2797	9	10.00	MT Th F	Ag	152
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2798	10	11.00	MT Th F	Tech A	408
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2799	11	11.00	TW Th F	Tech A	420
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2800	12	12.00	M W	Lawson	171
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		12.00	T Th	Wham	203
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2801	13	12.00	M W	Lawson	171
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		12.00	T Th	Ag	144
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2802	14	12.00	M W	Lawson	171
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		12.00	T Th	Ag	152
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2803	15	12.00	M W	Lawson	171
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		12.00	T Th	Tech A	422
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2804	16	12.00	M W	Lawson	171
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		12.00	T Th	Tech A	210
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2805	17	12.00	M W	Lawson	171
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		12.00	T Th	Tech A	420
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2806	18	02.00	M W	Lawson	141
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		02.00	T Th	Pull	208
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2807	19	02.00	M W	Lawson	141
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		02.00	T Th	Wham	201
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2808	20	02.00	M W	Lawson	141
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		02.00	T Th	Tech A	322
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2809	21	02.00	M W	Lawson	141
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		02.00	T Th	Tech A	420
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2810	22	02.00	M W	Lawson	141
		02.00	T Th	Tech A	408
2811	23	02.00	M W	Lawson	141
		02.00	T Th	Tech A	320
2812	24	03.00	M W F	Ag	116
		03.00	Th	Tech A	310
2813	25	05.45-07.25	M W	Tech A	320
2814	26	05.45-07.25	M W	Tech A	210
2815	27	05.45-07.25	T Th	Tech A	210
2816	28	05.45-07.25	T Th	Nkrs A	156

110 ECON-BUS STATISTICS						02.0 Cr ¹
1433	1	11.00	T Th	Lawson	201	Shields M
1434	2	02.00	T Th	Wham	302	Shields M

112 BASIC CONCEPTS-STAT						02.0 Cr
Prereq: One yr of high school algebra or GSD 106						
2817	1	12.00	T Th	Lawson	141	
2818	2	03.00	T Th	Nkrs B	440	

113 INTRO TO MATH						02.0 Cr
Prereq: One yr of high school algebra or GSD 106						
2819	1	08.00	T Th	Tech A	322	
2820	2	08.00	T Th	Tech A	420	
2821	3	09.00	T Th	Tech A	408	
2822	4	09.00	T Th	Tech A	308	
2823	5	10.00	T Th	Tech A	422	
2824	6	11.00	T Th	Nkrs A	156	
2825	7	04.00	M W	Tech A	408	
2826	201	03.00	MTWTh	Faner	1228	

Above section meets 10/13-12/9

117 EXPOSITORY WRITING						02.0 Cr
Prereq: GSD 101 or equivalent						
1962	1	08.00	T Th	Allyn	103	
1963	2	08.00	M W	Wham	305	
1964	3	08.00	M W	Pull	39	
1965	4	09.00	T Th	H Ec	118	
1966	5	09.00	T Th	Pull	229	
1967	6	10.00	T Th	Nkrs A	156	
1968	7	10.00	M W	Ag	148	
1969	8	11.00	M W	Pull	41	
1970	9	11.00	M W	Wham	312	
1971	10	12.00	T Th	Allyn	103	
1972	11	12.00	M W	Pull	119	
1973	12	01.00	M	Wham	307	
		01.00	W	Wham	303	
1974	13	01.00	M W	Pull	227	
1975	14	01.00	M W	Faner	1028	
1976	15	02.00	T Th	Pull	37	
1977	16	02.00	T Th	Allyn	103	
1978	17	03.00	M W	Faner	1030	
1979	18	03.00	M W	Ag	148	
1980	19	03.00	M W	Pull	41	
1981	20	04.00	T Th	Allyn	103	
1982	21	06.00	pm M W	Pull	208	
1983	22	07.35-08.25 pm	M W	Pull	118	

118 TECH REPORT WRITING						02.0 Cr
Prereq: GSD 101 or equivalent						
1984	1	08.00	T Th	Pull	37	
1985	2	09.00	M W	Pull	215	
1986	3	09.00	T Th	H Ec	201	
1987	4	10.00	M W	Pull	39	
1988	5	10.00	T Th	Pull	41	
1989	6	10.00	T Th	Nkrs A	278	
1990	7	11.00	T Th	Allyn	103	
1991	8	11.00	T Th	Ag	154	
1992	9	11.00	T Th	Wham	312	
1993	10	12.00	T Th	Faner	2463	
1994	11	01.00	T Th	Nkrs A	156	
1995	12	02.00	T Th	Faner	1028	
1996	13	02.00	M W	Wham	312	
1997	14	03.00	T Th	Allyn	103	
1998	15	06.00	pm M W	Pull	211	

119 CREATIVE WRITING						02.0 Cr
Prereq: GSD 101 or equivalent						
1999	1	08.00	T Th	Faner	2463	
2000	2	09.00	T Th	Faner	2463	
2001	3	09.00	M W	Pull	39	
2002	4	10.00	T Th	Faner	2463	
2003	5	11.00	T Th	Faner	2463	
2004	6	01.00	T Th	Faner	2463	

2005	7	02.00	T Th	Faner	2463
2006	8	04.00	T Th	Faner	2463
2007	9	06.00	pm T Th	H Ec	104
2008	10	07.35-08.25 pm	T Th	Pull	211

152 INTERPERSONAL COMM					02.0 Cr
4386	1	08.00	T Th	Comm	1022
4387	2	08.00	M W	Comm	1018
4388	3	08.00	M W	Comm	1022
4389	4	09.00	T Th	Ag	144
4390	5	09.00	M W	Pull	119
4391	6	10.00	T Th	Comm	1017

Above section restr to PRS

4392	7	11.00	T Th	Wham	321
4393	8	11.00	M W	Pull	39
4394	9	11.00	T Th	Wham	328
4395	10	11.00	M W	Pull	119
4396	11	12.00	M W	Comm	1018
4397	12	12.00	T Th	Wham	328
4398	13	12.00	M W	Comm	1017
4399	14	01.00	T Th	Tech A	310
4400	15	01.00	M W	Comm	2012
4401	16	01.00	T Th	Tech A	210
4402	17	01.00	M W	Pull	119
4403	18	01.00	T Th	Pull	41
4404	19	02.00	M W	Comm	2012
4405	20	02.00	T Th	Tech A	210
4406	21	02.00	M W	Ag	222
4407	22	02.00	T Th	Wham	321
4408	23	02.00	M W	Pull	119
4409	24	02.00	M W	Wham	303
4410	25	03.00	M W	Pull	119
4411	26	03.00	T Th	Tech A	210
4412	27	04.00	T Th	Comm	1022
4413	28	04.00	M W	Comm	1017
4414	29	05.45-07.25	T	Comm	1022
4415	30	07.35-09.15 pm	T	Comm	1022

153 PUBLIC COMMUNICAT						03.0 Cr
4416	1	08.00-09.15	T Th	Comm	1018	
4417	2	08.00	M W F	Comm	2012	
4418	3	09.00	M W F	Pull	35	
4419	4	09.35-10.50	T Th	Ag	154	
4420	5	10.00	M W F	Wham	328	
4421	6	11.00-12.15	T Th	Wham	317	

Above section restr to PRS

4422	7	11.00	M W F	Comm	1022
4423	8	11.00-12.15	T Th	Comm	2012
4424	9	12.00	M W F	Comm	1006
4425	10	12.35-01.50	T Th	Comm	2012
4426	11	01.00	M W F	Faner	1026
4427	12	02.00-03.15	T Th	Ag	220
4428	13	02.00	M W F	Wham	317
4429	14	03.00	M W F	Wham	317
4430	15	03.35-04.50	T Th	Comm	1018
4431	16	05.00-06.15	T Th	Comm	2012

199A LIB AS INFO SOURCE					01.0 Cr
0200	1	09.00	T	Lib	103J
0201	2	09.00	Th	Lib	103J
0202	3	09.00	W	Lib	103J
0203	4	10.00	T	Lib	103J
0204	5	10.00	Th	Lib	103J
0205	6	10.00	W	Lib	103J
0206	7	11.00	M	Lib	103J
0207	8	11.00	W	Lib	103J
0208	9	01.00	T	Lib	103J
0209	10	01.00	Th	Lib	103J
0210	11	01.00	W	Lib	103J
0211	12	01.00	M	Lib	103J

General Studies Area E—Human Health and Well Being (GSE)

All sections of GSE 100 through GSE 114z,except wherenoted otherwise, are open to both men and women.

100 RESTR PHYS EDUC						01.0 Cr ¹
3324	1	To be arranged			Okita	

101A SWIMMING-BEGINNING						02.0 Cr ¹
3325	1	08.00-09.30	T	Th	Pull P	61 Carroll

¹Elective Pass/Fail ²Mandatory Pass/Fail

3326	2	09.00-10.30	T Th	Pull P	61	Carroll
3327	3	11.00-12.30	T Th	Pull P	61	Carroll
3328	201	08.00-10.50	M W	Pull P	61	Carroll

Above section meets 8/22-10/12

101B SWIMMING-INTERMED 02.0 Cr ¹						
3329	1	10.00-11.30	T Th	Pull P	61	Knowlton
3330	2	12.00	M W F	Pull P	61	Shea
3331	3	12.00-01.30	T Th	Pull P	61	
3332	4	07.30-08.50pm	M Th	Pull P	61	

101D SWIMMING-SKIN DIV02.0 Cr¹

Prereq: Consent of instr

3333	201	11.00-12.30	M W	Pull P	61	Carroll
		11.00	T Th	Tech A	322	

Above section meets 8/22-10/12

101E SWIMMING-SCUBA DIV02.0 Cr¹

Prereq: GSE 101d

3334	201	10.00-12.30	M W	Pull P	61	Carroll
		11.00	T Th	Tech A	322	

102 PHYSICAL FITNESS02.0 Cr¹

3335	1	10.00	M	Tech A	405A	Ackerman
		10.00	W Th	Arena	555	
3336	2	11.00	W Th	Arena	555	Good
		11.00	M	Tech A	405A	

102A WEIGHT TRAINING01.0 to 02.0 Cr¹

3337	1	09.00	M W F	Arena	555	Stotlar
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One additional hour TBA

3338	2	10.00	M W F	Arena	555	
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One additional hour TBA

3339	3	11.00	M W F	Arena	555	
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One additional hour TBA

3340	201	09.00	T Th	Arena	555	
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Above section meets 10/13-12/9 for 1 credit

3341	202	10.00	T Th	Arena	555	
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Above section meets 10/13-12/9 for 1 credit

104A ARCHERY02.0 Cr¹

3342	201	02.00-03.50	T Th	Arena	555	Ellis
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Above section meets 8/23-10/11

3343	202	02.00-03.50	M W	Arena	555	Ellis
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Above sect meets 8/22-10/12. Stu must furnish 6 arrows

104B BADMINTON02.0 Cr¹

3344	201	12.00-01.50	M W	Pull	102	Stotlar
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Above section meets 10/12-12/7

3345	202	02.00-03.50	M W	Pull	102	Stotlar
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Above section meets 10/12-12/7

104C BASKETBALL01.0 to 02.0 Cr¹

3346	201	08.00	T F	Arena	555	
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Above section meets 10/18-12/9 for 1 credit

3347	202	08.00	T Th	Arena	555	
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Above section meets 8/23-10/11 for 1 Credit

3348	203	10.00-11.50	M W	Arena	555	Stotlar
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Above section meets 10/17-12/9 for 2 Credits

3349	204	10.00-11.50	T Th	Arena	555	
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Above section meets 10/13-12/9 for 2 credits

3350	205	12.00-01.50	T Th	Arena	555	
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Above section meets 10/13-12/9 for 2 credits

3351	206	12.00-01.50	T Th	Pull	102	
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Above section meets 8/23-10/11 for 2 credits

104D BOWLING02.0 Cr¹

3352	1	10.00	M W F	Center	103	
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Above section fee required

3353	201	08.00-09.50	T Th	Center	103	
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Above sect meets 10/17-12/7. Fee required.

3354	202	08.00-09.50	T Th	Center	103	
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Above section meets 10/13-12/9. Fee required.

3355	203	12.00-01.50	M W	Center	103	
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Above section fee required-meets 10/12-12/7

3356	204	01.00-02.50	T Th	Center	103	
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Above section fee required-meets 8/23-10/12

3357	205	01.00-02.50	T Th	Center	103	
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Above section fee required-meets 10/13-12/8

3358	206	02.00-03.50	M W	Center	103	
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Above section fee required-meets 10/12-12/7

104E GOLF01.0 Cr¹

3359	201	10.00	T Th	Arena	555	
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Above section meets 8/23-10/11 for 1 credit

3360	202	01.00	T Th	Arena	555	
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Above section meets 8/23-10/11 for 1 credit

104F SOCCER

02.0 Cr

3361	1	08.00	M W F	Arena	555	Ellis W
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104G KARATE02.0 Cr¹

3362	1	09.00-10.30	T Th	Arena	555	Brown
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3363	2	11.00-12.30	T Th	Arena	555	Brown
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3364	3	12.00-01.30	M W	Arena	555	Brown
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104H TENNIS01.0 to 02.0 Cr¹

3365	201	08.00-09.30	M W	Arena	555	
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Above section meets 8/22-10/12 for 2 credits

3366	202	08.00-09.30	T Th	Arena	555	
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Above section meets 8/23-10/11 for 2 credits

3367	203	08.00-09.50	F	Arena	555	
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Above section meets 8/26-10/14 for 1 credit

3368	204	09.30-11.00	M W	Arena	555	Good L
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Above section meets 8/22-10/12 for 1 credit

3369	205	09.30-11.00	T Th	Arena	555	
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Above section meets 8/23-10/11 for 2 credits

3370	206	10.00-11.50	F	Arena	555	
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Above section meets 8/26-10/14 for 1 credit

3371	207	11.00-12.30	M W	Arena	555	
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Above section meets 8/22-10/12 for 2 credits

3372	208	11.00-12.30	T Th	Arena	555	
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Above section meets 8/23-10/11 for 2 credits

3373	209	12.30-02.00	M W	Arena	555	
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Above section meets 8/22-10/12 for 2 credits

3374	210	01.00-02.30	T Th	Arena	555	
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Above section meets 8/23-10/11 for 2 credits

3375	211	01.00-02.50	F	Arena	555	
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02.00

M W

Arena

555

Above section meets 8/22-10/12 for 2 credits ----

NOTE- 104H Students Must Supply One Tennis Ball.

104I VOLLEYBALL02.0 Cr¹

3376	201	08.00-09.50	W F	Arena	555	
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Above section meets 10/14-12/9

3377	202	02.00-03.50	T Th	Pull	102	
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Above section meets 10/13-12/8

104J SOFTBALL02.0 Cr¹

3378	201	11.00-12.50	T Th	Arena	555	Surette
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Above section meets 8/23-10/11

104M - FENCING 1.0 Cr

See PEM 114M for registration.

104N CROSS-COUNTRY02.0 Cr¹

3379	1	11.00	M W F	Arena	555	Knowlton
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One additional hour TBA

104Q FLY & BAIT CASTING02.0 Cr¹

3380	201	08.00-09.50	M W	Arena	555	Franklin
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Above section meets 8/23-10/13

3381	202	08.00-09.50	T F	Arena	555	Franklin
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Above section meets 8/24-10/12

NOTE-- 104Q students must supply rod-reel

104T FLAG FOOTBALL01.0 Cr¹

3382	201	12.00-01.15	M W	Arena	555	Stotlar
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Above section meets 8/23-10/13

104V SELF DEFENSE01.0 Cr¹

3383	1	10.00-11.15	F	Arena	555	
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Above section for 1 credit

3384	201	10.00-11.50	T Th	Arena	555	
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Above section meets 10/18-12/9 for 2 credits

104W BEGINNING JUDO02.0 Cr¹

3385	1	11.00-12.30	M W	Arena	555	Franklin
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Gei required

104X HANDBALL02.0 Cr¹

3386	201	02.00-03.50	T Th	Arena	555	
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Above section meets 8/23-10/8.

104x students must furnish glove and one ball.

104Y RACQUETBALL01.0 to 02.0 Cr¹

3387	201	09.00-10.15	M W	Arena	555	
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Above Section Meets 8/22-10/12 for 1 Credit

3388	202	09.00-11.50	F	Arena	555	
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Above Section Meets 8/26-10/12 for 1 Credit

3389	203	10.00-11.50	M W	Arena	555	Ellis
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Above Section Meets 8/22-10/12 for 2 Credits

3390	204	12.00-01.50	T Th	Arena	555	Wilkinson
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Above Section Meets 8/23-10/11 for 2 Credits ----

NOTE- 104Y Students Must Supply 1 Racquetball.

104Z FLOOR HOCKEY02.0 Cr¹

3391	201	12.00-01.50	T Th	Pull	102	
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Above section meets 10/13-12/8

106 UNIV ORIENTEERING				02.0 Cr ¹	GSE 25
3392	201 01.00-04.50	F	Pull	227	
Above section meets 10/14-12/9					
111A SWIM-BEGINNING				01.0 to 02.0 Cr ¹	
3435	1 01.00	M W F	Pull P	61	
Above section for 2 credits					
3436	2 03.00-04.15	T Th	Pull P	61	
Above section for 2 credits					
3437	201 02.00-03.15	T Th	Pull P	61	
Above section for 1 credit,meets 10/13-12/8					
111B SWIM-INTERMEDIATE				01.0 to 02.0 Cr ¹	
Prereq: GSE 111a or equivalent					
3438	1 01.00	M W F	Pull P	61	
Above section for 2 credits					
3439	2 03.00-04.15	T Th	Pull P	61	
Above section for 2 credits					
3440	201 02.00-03.15	T Th	Pull P	61	
Above section for 1 credit,meets 10/13-12/8					
111C SYNCHRONIZED SWIM				02.0 Cr ¹	
Prereq: GSE 111b or equivalent					
3441	101 03.00-04.15	M W F	Pull P	61	
Above section meets 8/22-10/28					
111D SWIM-SKIN DIVING				02.0 Cr ¹	
Prereq: Consent of instr					
1 To be arranged					
See GSE 101d for days,time,& registration					
111E SWIM-SCUBA DIVING				02.0 Cr ¹	
Prereq: GSE 111d					
1 To be arranged					
See GSE 101e for days,time,& registration					
111F SWIM-LIFESAVING				02.0 Cr ¹	
Prereq: Pass special swim test					
3444	1 02.00	M W F	Pull P	61	
111G SWIM-CANOEING				01.0 Cr ¹	
Prereq: Pass special swim test					
3445	301 09.00	M W F	Gym	114	
Above section meets 8/22-9/30					
3446	302 10.00	M W F	Gym	114	
Above section meets 8/22-9/30					
112 EXERCISE FOR FITNES				01.0 to 02.0 Cr ¹	
3447	1 01.00	M W F	Gym	207	
Above section for women-2-credits					
3448	201 09.00	M W F	Gym	207	
Above section for women,meets 8/22-10/10,1 credit					
3449	202 01.00	M W F	Gym	207	
Above section for women,meets 10/12-12/9,1 credit					
113B DANCE-FOLK				01.0 Cr ¹	
3450	201 08.00	M W F	Gym	114	
Above section meets 8/22-10/10,for 1 credit					
3451	202 08.00	M W F	Gym	114	
Above section meets 10/14-12/9 for 1 Credit					
113D DANCE-BEG CONTEMP				02.0 Cr ¹	
3452	1 08.00-09.30	T Th	Gym	208	
3453	2 09.00-10.30	M W	Gym	208	
3454	3 12.00-01.30	T Th	Gym	208	
114A ARCHERY				01.0 Cr ¹	
3455	201 11.00-12.30	T Th	Gym	208	
Above section meets 8/23-10/11,for 1 credit					
114B BADMINTON				01.0 to 02.0 Cr ¹	
3456	1 03.00	M W F	Gym	207	
Above section for 2 credits					
3457	201 09.00	M W F	Gym	207	
Above section meets 10/14-12/9,for 1 credit					
3458	202 01.00	M W F	Gym	207	
Above section meets 8/22-10/10,for 1 credit					
114D BOWLING				01.0 to 02.0 Cr ¹	
3459	1 02.00	M W F	Center	103	
Above section for 2 credits					
3460	201 11.00-12.15	T Th	Center	103	
Above section meets 8/23-10/11,for 1 credit					
3461	202 01.00	M W F	Center	103	
Above section meets 8/22-10/10,for 1 credit					
3462	203 01.00	M W F	Center	103	
Above section meets 10/13-12/9,for 1 credit					
114E GOLF				01.0 Cr ¹	
3463	201 03.00-04.30	T Th	Gym	208	
Above section meets 8/23-10/11					
114H TENNIS				01.0 to 02.0 Cr ¹	
3464	201 08.00-09.30	MTWTh	Gym	206	
Above section meets 8/22-10/13,for 2 credits					
3465	202 09.00-10.30	MTWTh	Gym	206	
Above section meets 8/22-10/13,for 2 credits					
3466	203 10.00-11.30	MTWTh	Gym	114	
Above section meets 8/22-10/13,for 2 credits					
3467	204 11.00-12.30	T Th	Gym	114	
Above section meets 8/23-10/11,for 1 credit					
3468	205 12.00-01.30	MTWTh	Gym	207	
Above section meets 8/22-10/13,for 2 credits					
3469	206 01.00-02.30	MTWTh	Gym	203	
Above section meets 8/22-10/13,for 2 credits					
3470	207 02.00-03.30	T Th	Gym	203	
Above section meets 8/23-10/11,for 1 credit					
114I VOLLEYBALL				01.0 to 02.0 Cr ¹	
3471	1 02.00-03.30	M W	Gym	208	
Above section for women,2 credits					
3472	2 03.00-04.30	M W	Gym	208	
Above section for women,2 credits					
3473	201 09.00-10.30	T Th	Gym	208	
Above section for women,meets 8/23-10/11,for 1 credit					
3474	202 12.00-01.30	M W	Gym	208	
Above section meets 10/13-12/9,for 1 credit					
3475	203 02.00-03.30	M W	Gym	208	
Above section meets 10/13-12/9,for 1 credit					
114M FENCING				01.0 to 02.0 Cr ¹	
3476	201 09.00-10.15	T Th	Gym	114	
Above section meets 8/23-10/11,for 1 credit					
3477	202 09.00-10.15	T Th	Gym	114	
Above section meets 10/13-12/8,for 1 credit					
3478	203 01.00	M W F	Gym	114	
Above section meets 8/24-10/12,for 1 credit					
3479	204 01.00	M W F	Gym	114	
Above section meets 10/14-12/9,for 1 credit					
3480	205 03.00-04.15	MTWTh	Gym	114	
Above section meets 8/22-10/11,for 2 credits					
114P GYMNASTICS				02.0 Cr ¹	
3481	1 11.00-12.30	T Th	Gym	207	
Above section for women					
3482	2 12.00-01.30	T Th	Gym	207	
Above section for women					
114S INTERMED BOWLING				01.0 Cr ¹	
3483	201 11.00-12.30	T Th	Center	103	
Above section meets 10/13-12/8					
114T INTERMEDIATE TENNIS				02.0 Cr ¹	
3484	201 11.00-12.30	M W F	Gym	114	
Above section meets 8/22-10/12					
114Y RACQUETBALL				02.0 Cr ¹	
3485	201 10.00-11.30	TWThF	Gym	207	
Above section meets 8/23-10/12					
201 HEALTHFUL LIVING				02.0 Cr ¹	
2409	1 08.00	M W	Lingle	125	
2410	2 08.00	M W	Lingle	123	
2411	3 08.00	T Th	Lingle	125	
2412	4 08.00	T Th	Lingle	123	
2413	5 08.00	M W	Ag	148	
2414	6 08.00	T Th	Ag	220	
2415	7 08.00	M W	Ag	220	
2416	8 08.00	M W	Ag	222	
2417	9 09.00	T Th	Pull	211	
2418	10 09.00	M W	Ag	222	
2419	11 09.00	T Th	Lingle	125	
2420	12 09.00	T Th	Pull	310	
2421	13 09.00	M W	Ag	152	
2422	14 10.00	M W	Pull	119	
2423	15 10.00	T Th	Pull	208	
2424	16 10.00	T Th	Tech A	210	
2425	17 10.00	M W	Pull	118	
2426	18 10.00	M W	Lingle	121	
2427	19 10.00	T Th	Wham	112	
2428	20 11.00	T Th	Wham	329	
2429	21 11.00	M W	Lingle	123	
2430	22 11.00	M W	Lingle	125	

¹Elective Pass/Fail ²Mandatory Pass/Fail

2431	23	11.00	M	W	Ag	150
2432	24	11.00	T	Th	Ag	220
2433	25	11.00	T	Th	Pull	37
2434	26	12.00	T	Th	Ag	116
2435	27	12.00	T	Th	Pull	37
2436	28	12.00	M	W	Lingle	123
2437	29	12.00	M	W	Ag	144
2438	30	12.00	T	Th	Ag	170
2439	31	12.00	T	Th	Tech A	308
2440	32	12.00	T	Th	Ag	220
2441	33	12.00	T	Th	Nkrs C	116
2442	34	01.00	M	W	Lingle	125
2443	35	01.00	M	W	Lingle	121
2444	36	01.00	M	W	Pull	118
2445	37	01.00	T	Th	Tech A	422
2446	38	01.00	T	Th	Lingle	125
2447	39	01.00	T	Th	Tech A	308
2448	40	01.00	T	Th	Ag	152
2449	41	02.00	T	Th	Wham	319
2450	42	02.00	M	W	Tech A	420
2451	43	02.00	M	W	Lingle	123
2452	44	02.00	T	Th	Ag	216
2453	45	02.00	T	Th	Lingle	121

236 NUTRITIONAL ECOLOGY						02.0 Cr ¹
2119	1	09.00	T	Th	H Ec 140B	Konishi
2120	2	10.00	T	Th	H Ec 140B	
2121	3	11.00	T	Th	H Ec 140B	
2122	4	01.00	T	Th	H Ec 140B	Konishi
2123	5	02.00	T	Th	H Ec 140B	

240 HUM REL BTWN SEXES						02.0 Cr ¹
2454	1	08.00	T	Th	Lingle	121
2455	2	09.00	M	W	Wham	302
2456	3	10.00	T	Th	Faner	2512
2457	4	11.00	M	W	Faner	2367
2458	5	12.00	M	W	Tech A	420
2459	6	12.00	T	Th	Tech A	322
2460	7	01.00	T	Th	Tech A	122
2461	8	01.00	M	W	Ag	154
2462	9	01.00	T	Th	Allyn	103
2463	10	02.00	M	W	Tech A	408
2464	11	07.35-09.15 pm	T		Lawson	141 Lefevre J
2465	12	07.35-09.15 pm	W		Tech A	111
2466	13	07.35-09.15 pm	M		Tech A	111

SCHEDULE OF DEPARTMENTAL COURSES

Accounting (ACCT)

Course No.		Course Title			Semester Hours of Credit		
Call Sect.	No.	No.	Time	Days	Building	Room	Instructor's Name

110 APPLIED ACCTG I							03.0 Cr
Prereq: Student in School of Technical Careers							
0212	1	09.00		MTW F	0721	109	
0213	2	11.00		MTWTh	0721	109	
0214	3	02.00		TWThF	0721	109	

210 ACCT PRINC & CONTRL							03.0 Cr ¹
0215	1	09.00		M W F	Lawson	221	
0216	2	03.00		M W F	Lawson	221	

221 ACCOUNTING I							03.0 Cr
Prereq: Sophomore standing							
0217	1	08.00		M W F	Lawson	221	
0218	2	08.00-09.15		T Th	Lawson	221	
0219	3	09.35-10.50		T Th	Lawson	221	
0220	4	11.00		M W F	Lawson	221	
0221	5	12.35-01.50		T Th	Lawson	221	
0222	6	01.00		M W F	Lawson	221	
0223	7	02.00		M W F	Lawson	221	
0224	8	03.35-04.50		T Th	Lawson	221	

222 ACCOUNTING II							03.0 Cr
Prereq: 221-3							
0225	1	10.00		M W F	Lawson	221	
0226	2	11.00-12.15		T Th	Lawson	221	
0227	3	12.00		M W F	Lawson	221	
0228	4	02.00		T Th	Lawson	221	

309 INDIV INCOME TAX							02.0 Cr ¹
0229	1	01.00		M W	Cl	24	

319 COMPUTERS IN ACCT							03.0 Cr
Prereq: 222 and knowledge of one computer language							
0230	1	08.00		M W F	Cl	24	

321 INTERMED ACCT I							03.0 Cr
Prereq: 222 and junior standing or consent of department							
0231	1	09.35-10.50		T Th	Cl	12	
0232	2	10.00		M W F	Cl	12	
0233	3	12.00		M W F	Cl	12	
0234	4	02.00		M W F	Cl	12	
0235	5	02.00-03.15		T Th	Cl	12	

322 INTERMED ACCT II							03.0 Cr
Prereq: 321-3							
0236	1	09.35-10.50		T Th	Cl	24	
0237	2	11.00		M W F	Cl	18	
0238	3	03.00		M W F	Cl	18	

341 COST ACCOUNTING							03.0 Cr
Prereq: 222 and junior standing or consent of department							
0239	1	09.00		M W F	Cl	12	
0240	2	11.00-12.15		T Th	Cl	12	
0241	3	01.00		M W F	Cl	12	
0242	4	02.00-03.15		T Th	Cl	24	

365 INTRO TO TAXATION							03.0 Cr
Prereq: 222 and junior standing or consent of department							
0243	1	09.00		M W F	Cl	18	
0244	2	12.35-01.50		T Th	Cl	18	
0245	3	02.00		M W F	Cl	24	

390 INDEP STUDY IN ACCT							01.0 to 04.0 Cr
Prereq: 322,341,365 and consent of department							
0246	700	To be arranged					

405 ACCT-PUBLIC ORGANIZ					03.0 Cr	AJ 27	
Prereq: 222							
0247	1	10.00	M W F	Cl	18		
432 ADVANCED TAX					03.0 Cr		
Prereq: 365							
0248	1	12.00	M W F	Cl	18		
442 ADVANCED COST ACCT					03.0 Cr		
Prereq: 341							
0249	1	09.00	M W F	Cl	24		
453 ADVANCED ACCOUNTING					03.0 Cr		
Prereq: 322							
0250	1	11.00	M W F	Cl	12		
0251	2	02.00	M W F	Cl	18		
477 CUR DEV-ACCT THEORY					03.0 Cr		
Prereq: 322							
0252	1	08.00	T Th	Cl	12		
0253	2	12.35-01.50	T Th	Cl	24		
486 AUDITING					03.0 Cr		
Prereq: 341,322 and 365							
0254	1	09.35-10.50	T Th	Cl	18		
0255	2	02.00-03.15	T Th	Cl	18		
Administration of Justice (AJ)							
200 INTRO-CRIMINAL BEH					03.0 Cr		
0256	1	11.00	M W	Lawson 171 Johnson E			
		09.00	M	Wham 301B Wilson N			
0257	2	11.00	M W	Lawson 171 Johnson E			
		01.00	Th	Faner 2367 Wilson N			
0258	3	11.00	M W	Lawson 171 Johnson E			
		11.00	T	Faner 2010 Wilson N			
0259	4	11.00	M W	Lawson 171 Johnson			
		01.00	T	Pull 35 Wilson N			
0260	5	11.00	M W	Lawson 171 Johnson E			
		08.00	W	Faner 2008 Wilson N			
0261	6	11.00	M W	Lawson 171 Johnson E			
		01.00	W	Faner 2367 Wilson N			
0262	7	11.00	M W	Lawson 171 Johnson E			
		12.00	F	Faner 2365 Wilson N			
0263	8	11.00	M W	Lawson 171 Johnson E			
		11.00	F	Faner 2367 Wilson N			
0264	9	11.00	M W	Lawson 171 Johnson E			
		11.00	F	Faner 2205 Wilson N			
0265	10	11.00	M W	Lawson 171 Johnson E			
		11.00	F	Wham 301B Wilson N			
201 INTRO-CRIM JUST SYS					03.0 Cr		
0266	1	09.00	M W F	LS I 133 Kiefer G			
300 ASSESSMNT-OFFENDERS					03.0 Cr		
Prereq: 200 and 201 or consent of inst							
0267	1	08.00	M W F	Faner 1004 Barry D			
0268	2	09.35-10.50	T Th	Faner 1004 Anderson D			
301 HUMAN REL-CRIM JUST					03.0 Cr		
Prereq: 200 and 201 or cons of instr							
0269	1	10.00	M W F	H Ec 106 Bascom P			
303 BEHAV ASPECTS-INVES					03.0 Cr		
Prereq: 200 and 201 or cons of instr							
0270	1	06.00-08.50 pm	Th	H Ec 201			
304 LAW-VIOLA,ENF & COM					03.0 Cr		
Prereq: 200 and 201 or consent of instructor							
0271	1	02.00	M W F	H Ec 201 Klyman F			
305 CRIM LAW-PROCED ASP					03.0 Cr		
Prereq: 200 and 201 or consent of instructor							
0272	1	12.35-01.50	T Th	Lawson 201			
316 INTRO-CRIM JUST RES					03.0 Cr		
Prereq: 200 and 201 or cons of instr							
0273	1	08.00-09.15	T Th	Faner 1026 Barry D			
0274	2	09.00	M W F	Faner 2367 Wilson N			
344 DRUG USE					02.0 Cr		
Prereq: 200 and 201 or cons of instr							
0275	1	10.00-11.50	T	Pull 119 Kiefer G			
348 TREATMNT MODALITIES					03.0 Cr		
Prereq: 200 and 201 or cons of instr							
0276	1	11.00	M W F	H Ec 118 Wilson K			

390 READINGS IN A.J.					01.0 to 04.0 Cr
Prereq: 200 and 201 and consent of fac sponsor					
0277	700	To be arranged			
395 SUPERV FLD EX-A.J.					03.0 to 15.0 Cr ²
Prereq: 200 & 201 & 12 cr hrs in AJ courses & cons of dept					
0278	700	To be arranged			
406 LEGAL ASPECTS IN AJ					03.0 Cr
Prereq: 305, or graduate status, or consent of instructor					
0279	1	06.00-08.50 pm	T	H Ec 118 Farrell R	
415 PREVENT-CRIME & DEL					03.0 Cr
Prereq: 200 and 201 or cons of instr					
0280	1	07.00-09.50 pm	W	H Ec 106 Anderson D	
416 METH-CRIM JUST RES					03.0 Cr
Prereq: 200 and 201 or cons of instr					
0281	1	10.00	M W F	H Ec 202 Wilson K	
471 PRIN OF MGT IN AJ					03.0 Cr
Prereq: 200 and 201 or consent of inst					
0282	1	03.35-04.50	T Th	H Ec 118 Coughlin J	
472 AMER CORRECTION SYS					03.0 Cr
Prereq: 200 and 201 or cons of instr					
0283	1	11.00-12.15	T Th	H Ec 306 Johnson E	
Above section crosslisted with SOC 472					
473 JUVENILE DELINQ					04.0 Cr
Prereq: 200 and 201 or cons of instr					
0284	1	01.00	TW Th F	Faner 1004	
Above section crosslisted with SOC 473 restr to u-grad					
0285	2	06.30-09.50 pm	T	H Ec 208 Eynon T	
Above section crosslisted with SOC 473					
474 LAW ENFORCEMENT ADM					03.0 Cr
Prereq: 200 and 201 or cons of instr					
0286	1	11.00	M W F	H Ec 120 Klyman F	
490 INDEPEND STU IN AJ					01.0 to 03.0 Cr
Prereq: 200 and 201 or cons of instr					
0287	700	To be arranged			
492 CONTEMP ISSUES-AJ					02.0 to 03.0 Cr
Prereq: 200 and 201 or cons of instr					
0288	1	08.00-09.15	T Th	H Ec 122 Kiefer G	
Topic: Organized Crime-undergraduates only					
0289	2	09.35-10.50	T Th	H Ec 122 Coughlin J	
Topic: Correctional Case Management					
0290	3	01.00	M W F	Faner 2008 Wilson N	
Topic: Female Crime					
0291	4	05.00-07.50	M	H Ec 122 Wilson K	
Topic: Practicum in Treatment Modalities					
0292	5	06.00-08.50 pm	M	H Ec 202	
Topic: Advanced Investigation					
0293	6	06.00-08.50 pm	W	Pull 119	
Topic: Contemporary Issues in Law Enforce-u-grad only					
501 CRIM BEHAV-OFFENDER					03.0 Cr
Prereq: Cons of instr					
0294	1	08.00-09.15	T Th	H Ec 120 Bennett L	
502 CRIM BEHAV-GRP MEMB					03.0 Cr
Prereq: Cons of instr					
0295	1	02.00-03.50	M W	H Ec 120 Johnson E	
503 CRIM BEHAV-LEGL ASP					03.0 Cr
0296	1	06.00-08.50 pm	Th	Wham 206	
578 SEM-COR REHB COUNSL					01.0 to 04.0 Cr
Prereq: Consent of instructor					
0297	1	12.35-01.50	T Th	Faner 2061 Anderson D	
584 SEM-CRIM PROG MGT					03.0 Cr
Prereq: 471 or cons of instr					
0298	1	09.35-12.15	W	Faner 4230 Coughlin J	
587 SEM-LAW ENFORCEMENT					03.0 Cr
Prereq: Cons of instr					
0299	1	04.00-05.30	M W	H Ec 120 Klyman F	
590 SUPERV READ-SEL SUB					01.0 to 03.0 Cr
Prereq: Cons of a faculty sponsor					
0300	700	To be arranged			
595A SUPERVISED FIELD WK					03.0 to 06.0 Cr
Prereq: Consent of instructor					
0301	700	To be arranged			

¹Elective Pass/Fail

²Mandatory Pass/Fail

595B	SUPERVISED FIELD WK	03.0 to 06.0 Cr
Prereq: Consent of instructor		
0302	700 To be arranged	
599	THESIS	03.0 to 06.0 Cr
Prereq: Cons of academic coordinator		
0303	700 To be arranged	

Administrative Sciences (ADSC)

170	INTRO TO BUS ADMIN	03.0 Cr ¹
0304	1 10.00 M W F Lawson 101	
208	INTERP OF BUS DATA	04.0 Cr ¹
Prereq: Math 116 or 139 or equiv		
0305	1 08.00-09.15 T Th Lawson 171	
	09.00 M H Ec 118	
0306	2 08.00-09.15 T Th Lawson 171	
	11.00 F Ag 144	
0307	3 08.00-09.15 T Th Lawson 171	
	11.00 M Ag 154	
0308	4 08.00-09.15 T Th Lawson 171	
	01.00 W Pull 208	
0309	5 11.00-12.15 T Th Wham 105	
	09.00 W Wham 112	
0310	6 11.00-12.15 T Th Wham 105	
	09.00 F Pull 215	
0311	7 11.00-12.15 T Th Wham 105	
	11.00 W Ag 154	
0312	8 11.00-12.15 T Th Wham 105	
	01.00 M Faner 1004	

300	INTERNSHIP IN ADSC	03.0 Cr ²
Prereq: Junior standing and consent of department		
0313	700 To be arranged	

301	MGT & SUPERVISION	03.0 Cr ¹
Prereq: GSB 202, junior standing or consent of department		
0314	1 11.00 M W F Lawson 231 Westberg W	
0315	2 12.00 M W F Lawson 101	
0316	3 02.00 M W F Lawson 101	

302	ADMINISTRATIVE COMM	03.0 Cr
0317	1 10.00 M W F Cl 328 Fohr J	
0318	2 03.00 M W F Cl 328 Fohr J	

304	ORGANIZATION ADMIN	03.0 Cr ¹
Prereq: GSB 202 or equiv & jr standing or consent of dept		
0319	1 08.00 M W F LS I 133 Bateman D	
0320	2 01.00 M W F LS I 133 Bateman D	

318	PROD-OPERATION MGT	03.0 Cr ¹
Prereq: 208, MATH 117 or 140, CS 202 or equiv or cons dept		
0321	1 08.00 M W F Wham 205	
0322	2 09.00 M W F Wham 201	
0323	3 10.00 M W F Wham 208	
0324	4 11.00 M W F Wham 205	
0325	5 01.00 M W F Wham 201	
0326	6 02.00 M W F Wham 201	

341	ORGANIZAT BEHAV I	03.0 Cr ¹
Prereq: 208 and 304, and junior standing or consent of dept		
0327	1 09.35-10.50 T Th Wham 326	
0328	2 11.00-12.15 T Th Faner 1224	

345	INTRO-MGT SYSTEMS	03.0 Cr ¹
Prereq: 318, CS 202, and junior standing or consent of dept		
0329	1 08.00 M W F Cl 328	
0330	2 12.00 M W F Cl 109	

352	INTRO-MGT SCIENCE	03.0 Cr
Prereq: 208, MATH 117 or 140, CS 212, jr stand or consent		
0331	1 09.00 M W F Wham 206	

361	RES METH IN ADMINIS	03.0 Cr ¹
Prereq: 304, 208, GSD 101 and jr stand or consent of dept		
0332	1 10.00 M W F Wham 326 Bateman	
0333	2 03.00 M W F Wham 206 Vicars W	

385	HUMAN RES ADMINIS	03.0 Cr ¹
Prereq: Intro stat, 304 or equiv, and jr stand or cons dept		
0334	1 08.00-09.15 T Th Wham 210	
0335	2 12.35-01.50 T Th Wham 201	

402	SEEKING EMPLOYMENT	01.0 Cr ²
Prereq: Senior standing or consent of department		
0336	1 01.00 Th Wham 321 Grey R	

456	MGT SYSTEMS APPLIC	03.0 Cr ¹
Prereq: 345, 352 or 452 and jr stand or consent of dept		
0337	1 11.00 M W F Wham 305 Busson R	

474	MGT RESPON IN SOC	03.0 Cr ¹
Prereq: Senior standing or consent of department		
0338	1 12.35-01.50 T Th Wham 303 Sherman A	

479	PROBS IN BUS & ECON	03.0 Cr ¹
Prereq: 208 or ECON 308,215, MKTG 304, and jr stand or cons		
0339	1 11.00-12.15 T Th Wham 201	

481	ADMINISTRATIVE POL	03.0 Cr ¹
Prereq: Sr stand,304,318, FIN 320, MKTG 304 or equiv		
0340	1 08.00-09.15 T Th Cl 109	
0341	2 09.35-10.50 T Th Cl 328	
0342	3 11.00-12.15 T Th Cl 109	
0343	4 12.35-01.50 T Th Cl 109	
0344	5 02.00-03.15 T Th Cl 328	

491	SPC TOPICS IN ADMIN	01.0 to 06.0 Cr
Prereq: Consent of department chairman and instructor		
0345	700 To be arranged	

Aerospace Studies (AS)

100A	LEADERSHIP LAB I	00.0 Cr
0346	1 10.00 T Lib 26	

101	US AIR FORCE	01.0 Cr
0347	1 08.00 Th Faner 2206 Deignan	
0348	2 09.00 T Faner 2206 Deignan	
0349	3 11.00 T Faner 2206 Deignan	

200A	LEADERSHIP LAB II	00.0 Cr
Prereq: 100		
0350	1 10.00 T Lib 26	

201	DEVEL AIR POWER I	01.0 Cr
0351	1 08.00 W Faner 2205 Deignan	
0352	2 09.00 W Faner 2206 Deignan	
0353	3 11.00 W Faner 2205 Deignan	

300A	LEADERSHIP LAB III	00.0 Cr
Prereq: Completion of 200 or GMC equivalency		
0354	1 10.00 T Lib 26	

340A	LEADERSHIP LAB IV	00.0 Cr
0355	1 10.00 T Lib 26	

351	MGT & LEADERSHIP I	03.0 Cr
Prereq: 304 or consent of instructor		
0356	1 09.00 M W F Faner 2205 Morey	
0357	2 10.00 M W F Faner 2206	
0358	3 02.00 M W F Faner 2206 Morey	

Agricultural Industries (AGI)

204	INTRO TO AG ECON	03.0 Cr ¹
0359	1 09.00 M W Ag 102 Herr W	
	10.00 Th Ag 216	

0360	2 09.00 M W Ag 102 Herr	
	09.00 F Ag 216	
0361	3 09.00 M W Ag 102 Herr	
	09.00 F Ag 216	

0362	4 09.00 M W Ag 102 Herr	
	11.00 F Ag 216	
0363	5 09.00 M W Ag 102	
	11.00 F Ag 216	

258	WORK EXPERIENCE	01.0 to 30.0 Cr ²
0364	700 To be arranged	

311	AG ED PROGRAMS	03.0 Cr
0365	1 08.00 M W F Ag 216 Wood	

340	ECON-FD&RUR DEV POL	03.0 Cr ¹
Prereq: 204 or consent of instructor		
0366	1 11.00 M W F Ag 225 Cusumano	

350	FARM MANAGEMENT	03.0 Cr ¹
Prereq: 204 or one course in Economics		
0367	1 01.00 M F Ag 225	
	12.00-01.50 W Ag 225	
0368	2 01.00 M F Ag 225	
	12.00-01.50 Th Ag 225	

351	FINANCIAL MGT-AGRIC	03.0 Cr ¹
Prereq: 204 or equivalent		
0369	1 02.00 M W F Ag 225 Herr	

359	INTERN PROGRAM	01.0 to 06.0 Cr ²
Prereq: Junior standing or consent of instructor		
0370	700 To be arranged	

360 COOP & AGRI-BUS MGT				03.0 Cr ¹
Prereq: 204 or equivalent				
0371	1	08.00	M W F	Ag 225 Solverson
361 DISTRIB IN AGRI-BUS				02.0 Cr ¹
Prereq: 204 or equivalent				
0372	1	03.00	T	Ag 225 Wills
		03.00-04.50	Th	Ag 225
373 AGRI PROD MACHINERY				03.0 Cr
0373	1	08.00	M W	0832 101 Wolff
		01.00-02.50	T	0832 101
0374	2	08.00	M W	0832 101 Wolff
		03.00-04.50	T	0832 101
376 APPLIED GRAPHICS				02.0 Cr
0375	201	09.00	M W	Ag 195
		08.00-09.50	T Th	Ag 195
Above section meets 10/13-12/9				
0376	202	10.00	M W	Ag 195
		10.00-11.50	T Th	Ag 195
Above section meets 10/13-12/9				
377 SURVEYING & PLAN				02.0 Cr
0377	201	10.00	M W	Ag 224 Doerr
		08.00-09.50	T Th	0832 101
Above section meets 8/22-10/12				
0378	202	10.00	M W	Ag 224 Doerr
		10.00-11.50	T Th	0832 101
Above section meets 8/22-10/12				
378 CONSTR PROCESS-AGRI				03.0 Cr
0379	1	11.00-12.50	W F	0831 101
		11.00	M	0832 101
0380	2	03.00-04.50	M W	0831 101
		11.00	M	0832 101
381 AGRICULTURAL SEM				01.0 Cr
Prereq: Junior standing and consent of department				
0381	1	04.00	M	Ag 155 Lybecker
388 INTERNATIONAL STU				01.0 to 08.0 Cr
Prereq: Major department or program approval				
0382	700	To be arranged		
390 SPECIAL STUDIES-AGI				01.0 to 04.0 Cr ¹
Prereq: Consent of chairman				
0383	700	To be arranged		
391 HONORS IN AGRI IND				01.0 to 04.0 Cr ¹
Prereq: Jr, GPA 3.0-3.25 in maj; approv staff memb,dep chrnm				
0384	700	To be arranged		
401 AGRICULTURAL LAW				03.0 Cr ¹
Prereq: Jr stand or cons of instr				
0385	1	12.35-01.50	T Th	Ag 214 Hannah
402A PROB AG I-AGRI ECON				01.0 to 06.0 Cr
Prereq: Consent of chairman				
0386	700	To be arranged		
402B PROB AG I-AGRI EDUC				01.0 to 06.0 Cr
Prereq: Consent of chairman				
0387	700	To be arranged		
402C PROB-AGRI MECHANIZ				01.0 to 06.0 Cr
Prereq: Consent of chairman				
0388	700	To be arranged		
414 ADLT ED PRO MTH,TEC				03.0 Cr
0389	1	11.00-12.15	T Th	Ag 155 Welton
442 AG DEV-EMERG COUNTR				02.0 Cr ¹
Prereq: 204 or GSB 211				
0390	1	11.00	T Th	Ag 222 Cusumano
450 ADVANCED FARM MGT				03.0 Cr ¹
Prereq: 350 or equivalent				
0391	1	10.00	M W	Ag 225 Lybecker
		09.00-10.50	F	Ag 225
462A AG MKTG-LIVESTOCK				01.0 Cr ¹
Prereq: 360				
0392	201	02.00	T Th	Ag 225 Wills
Above section meets 10/13-12/9				
462B AG MKTG-FIELD CROPS				01.0 Cr ¹
Prereq: 360				
0393	201	02.00	T Th	Ag 225 Wills
Above section meets 8/22-10/12				
463 COMMODITY FUTUR MKT				02.0 Cr ¹
Prereq: Junior or senior standing				
0394	1	09.00	T Th	Ag 222 Lybecker

473 ADV AG ELECTRICITY				02.0 Cr
Prereq: 379 or equivalent				
0395	1	02.00	Th	0832 101 Wolff
		03.00-04.50	Th	0832 101
500 RESEARCH MTHODOLOGY				03.0 Cr
Prereq: Cons of dept chairman				
0396	1	08.30-09.50	T Th	Ag 155 Wills
562 ADVANCED AG MKTG				03.0 Cr
Prereq: 8 hrs Ag Econ or Econ				
0397	1	03.00	M W F	Ag 155 Solverson
581A SEM-AGRI ECONOMICS				01.0 to 04.0 Cr
0398	1	To be arranged		
581B SEM-AGRI EDUCATION				01.0 to 04.0 Cr
0399	1	To be arranged		
581C SEM-AG MECHANIZAT				01.0 to 04.0 Cr
0400	1	To be arranged		
588 INTERNATL GRAD STU				01.0 to 08.0 Cr
0401	700	To be arranged		
590 READINGS				01.0 to 04.0 Cr
0402	700	To be arranged		
593 INDIVIDUAL RESEARCH				01.0 to 04.0 Cr
0403	700	To be arranged		
599 THESIS				01.0 to 06.0 Cr
0404	700	To be arranged		

Agriculture (AGRI)

401 ENVIRONMENT EDUCAT				03.0 Cr
Prereq: 10hrs biol sci,or 10hrs rec and/or educ,or consent				
0406	1	09.00-11.50	Th	Ag 225 Yambert P
423 ENVIRONMENT INTERP				03.0 Cr
Prereq: 10hrs nat sci or 10hrs rec or consent of instructor				
0407	1	02.00	M	Ag 144
		02.00-04.50	W	Ag 144

Allied Health Careers Specialties (AHC)

101 INTRO CLIN LAB TECH			01.0 to 04.0 Cr
Prereq: Consent of program advisor			
0408	850	To be arranged	Rahmp Smith D
102 INTRO CLIN RAD TECH			01.0 to 04.0 Cr
Prereq: Consent of program advisor			
0409	850	To be arranged	Rahmp Smith D
103 CLIN RESPIR THERAPY			01.0 to 12.0 Cr
Prereq: Consent of program advisor			
0410	850	To be arranged	Rahmp Smith D
125 SURVEY-AL HLTH SCI			01.0 to 04.0 Cr
Prereq: Consent of program advisor			
0411	850	To be arranged	Rahmp Smith D
151 CLIN LAB TECHNIQUES			01.0 to 10.0 Cr
Prereq: Consent of program advisor			
0412	850	To be arranged	Rahmp Smith D
152 CLIN RADIOLOGIC TEC			01.0 to 10.0 Cr
Prereq: Consent of program advisor			
0413	850	To be arranged	Rahmp Smith D
201 CLIN LAB TECHNIQUES			01.0 to 10.0 Cr
Prereq: Consent of program advisor			
0414	850	To be arranged	Rahmp Smith D
202 CLIN RADIOLOGIC TEC			01.0 to 10.0 Cr
Prereq: Consent of program advisor			
0415	850	To be arranged	Rahmp Smith D
203 CLIN RESPIR THERAPY			01.0 to 12.0 Cr
Prereq: Consent of program advisor			
0416	850	To be arranged	

Animal Industries (ANI)

121 SCIENCE OF ANIMALS				03.0 Cr ¹
Prereq: Concurrent enrollment in 122				
0417	1	11.00	M W F	Ag 102 Olson & Goodman

122 PROD-PROCESS PRACT					01.0 Cr ¹
0418	1	08.00-09.50	T	Ag	116
Instrs: Olson, Hodson & Goodman					
0419	2	08.00-09.50	Th	Ag	116
Instrs: Olson, Hodson & Goodman					
0420	3	10.00-11.50	T	Ag	116
Instrs: Olson, Hodson & Goodman					
0421	4	10.00-11.50	Th	Ag	116
Instrs: Olson, Hodson & Goodman					
0422	5	01.00-02.50	T	Ag	116
201 CARE & MGT OF PETS					03.0 Cr ¹
0423	1	12.00	M W F	Ag	102 Hausler C
215 INTRO-ANIMAL NUTRIT					02.0 Cr ¹
Prereq: GSA chemistry or equivalent					
0424	1	12.00	T Th	Ag	102 Lee D
220 EQUITATION					02.0 Cr ²
Prereq: Consent of instructor					
0425	101	10.00	M W F	Ag	114 Kammlade W
		11.00	M W F	A-19-1	101
Above section meets 8/22-11/4					
0426	102	01.00	M W F	Ag	114 Kammlade W
		02.00	M W F	A-19-1	101
Above section meets 8/22-11/4					
258 WORK EXPERIENCE					01.0 to 10.0 Cr ²
Prereq: Consent of chairman					
0427	700	To be arranged			
311A SELECT-FARM AN&POUL					02.0 Cr ¹
Prereq: 121 recommended					
0428	1	01.00-03.50	M	Ag	132
		01.00-02.50	W	Ag	132
Instrs: Goodman, Hodson & Males					
0429	2	03.00-05.50	T	Ag	132
		03.00-04.50	Th	Ag	132
Instrs: Goodman, Hodson & Males					
319 HORSES					03.0 Cr ¹
0430	1	09.00	M W	Ag	214 Kammlade W
		10.00-11.50	T	Ag	114
0431	2	09.00	M W	Ag	214 Kammlade W
		10.00-11.50	Th	Ag	114
332 ANIM BREED & GENET					03.0 Cr ¹
Prereq: 121 or biology					
0432	1	08.00	M W F	Ag	102 Goodman B
359 INTERN PROGRAM					02.0 to 03.0 Cr ²
Prereq: Junior standing and consent of chairman					
0433	700	To be arranged			
380 FOREIGN-DOM ANIM AG					01.0 to 06.0 Cr ¹
0434	1	To be arranged			
381 ANIMAL SCIENCE SEM					01.0 Cr
Prereq: Junior-senior standing					
0435	1	11.00	T	Ag	132 Hinners S
0436	2	04.00	M	Ag	132 Hinners S
390 SPECIAL STUDIES ANI					01.0 to 04.0 Cr ²
Prereq: Juniors and seniors only and consent of chairman					
0437	700	To be arranged			
414 ANIM FEED QUAL CONT					02.0 Cr
Prereq: Course in chemistry recommended					
0438	1	10.00	T	Ag	120 Hinners S
		08.00-10.50	Th	Ag	120
415 MONOGASTRIC NUTRIT					03.0 Cr
Prereq: 215 and 315 recommended					
0439	1	02.00	M W	Ag	148 Hinners & Hodson
		02.00-03.50	F	Ag	132
419 STABL MGT-HORSEMNSP					03.0 Cr
Prereq: 319					
0440	1	09.00	T	Ag	114 Kammlade W
		01.00-02.50	T Th	Ag	114
420 COMMERC POULT PROD					04.0 Cr
Prereq: 315 or consent of instructor					
0441	1	01.00	M W F	Ag	116 Goodman & Hinners
		08.00-09.50	T	Ag	132

421 INTERNATL ANIM PROD				02.0 Cr ¹
Prereq: Jr standing plus 121 or one yr of biological science				
0442	1	03.00	T Th Ag	148 Olson H
434 PHSL OF LACTATION				02.0 Cr
Prereq: 331 or course in physiology				
0443	1	03.00	M Ag	220 Olson & Hausler
		03.00	W Ag	132
485 BEEF PRODUCTION				04.0 Cr
Prereq: 315 & 332 or consent of instr				
0444	1	11.00	M W F Ag	116 Males J
		01.00-02.50	T Ag	132
0445	2	11.00	M W F Ag	116 Males J
		01.00-02.50	Th Ag	132
500 RES METH IN AG SCI				03.0 Cr
Prereq: Graduate student				
0446	1	09.00	M W F Ag	132 Kroening & Leasure
515 ENERGY & PROT UTIL				03.0 Cr
Prereq: Consent of instructor				
0447	1	10.00	M W F Ag	218 Lee D
588 INTERNATL GRAD STU				01.0 to 08.0 Cr
0448	700	To be arranged		
590 READINGS IN AN IND				01.0 to 03.0 Cr
0449	700	To be arranged		
593 INDIVIDUAL RESEARCH				01.0 to 03.0 Cr
0450	700	To be arranged		
599 THESIS				01.0 to 06.0 Cr
0451	700	To be arranged		
Anthropology (ANTH)				
225 SEPARATE REALITIES				03.0 Cr
0455	1	03.00	M W F Wham	326
231 FOLKLORE & MOD LIFE				03.0 Cr
0456	1	12.00	M W F Faner	1136 Maring E
300A INTRO-PHYSICAL ANTH				03.0 Cr
0457	1	11.00	M W F Faner	3438
300B INTRO-LING ANTH				03.0 Cr
0458	1	09.00	M W F Park	204 Bender L
300C INTRO-ARCHAEOLOGY				03.0 Cr
0459	1	08.00	M W F Wham	326 Riley C
300D INTRO-SOC CULT ANTH				03.0 Cr
0460	1	10.00	M W F Faner	1004 Maring E
310A PEOPLES & CULT-N.AM				03.0 Cr
0461	1	01.00	M W F Faner	3512 MacIachlan B
310B PEOPL,CULT-LATIN AM				03.0 Cr
0462	1	01.00	M W F Faner	3442 Rands R
310E PEOPL & CULT-CARIBB				03.0 Cr
0463	1	02.00	M W F Faner	3512 Handler J
315 ANTH & DOCUM FILMS				04.0 Cr ¹
0464	1	02.00-03.15	T Th Faner	3512 Dark P
376 INDEP STU IN CLST				02.0 to 08.0 Cr ¹
Prereq: Consent of instr & classical studies section head				
0465	700	To be arranged		
400D CUR PROB-SOCIO-CULT				03.0 Cr
Prereq: 300d for undergraduates or consent of instructor				
0466	1	03.00	M W F Faner	3514
405 ART & ANTHROPOLOGY				03.0 Cr
0467	1	11.00-12.15	T Th Faner	3512 Dark P
406 CONSERVAT ARCHAEOLOG				03.0 Cr
Prereq: 300c or 400c or consent of instructor				
0468	1	08.00	M W F Faner	3514 Plog S
409 HISTORY OF ANTHRO				03.0 Cr
Prereq: None.recom 300d for u-grads,400d or equiv for grads				
0469	1	09.35-10.50	T Th Faner	1230 Riley C
410B EDUCATIONAL ANTH				03.0 Cr
Prereq: None. 300d recommended for undergraduates				
0470	1	07.00-10.00 pm	Th H Ec	306 Maring J
410E ANTHROPOLOGY OF LAW				03.0 Cr
Prereq: None. 300d recommended for undergraduates				
0471	1	10.00	M W F Park	301 MacIachlan B

	410I	ETHNO-M E, EUR, N WLD				03.0 Cr
0472	1	07.00-10.00pm	T	Altg	106	Maring J
	430B	ARCH OF MESO-AMER				03.0 Cr
	Prereq: 300c or 400c or consent of the instructor					
0473	1	02.00	M W F	Faner	3514	Rands R
	440A	HUMAN EVOLUTION				03.0 Cr
	Prereq: 300a or consent of the instructor					
0474	1	12.35-01.50	T Th	Faner	3438	
	441	LAB ANALY IN ARCH				03.0 Cr
0475	1	04.00	M W F	Faner	3479	Muller J
	450A	MUSEUM STU-METH, DIS				03.0 Cr
0476	1	11.00	M W F	Faner	3512	
	460	INDIV STUDY IN ANTH				01.0 to 12.0 Cr
0477	700	To be arranged				
	499	HONORS THESIS				03.0 Cr ¹
	Prereq: Consent of department					
0478	700	To be arranged				
	515A	SEM-SOC CULT ANTHRO				03.0 Cr
	Prereq: 409 or consent of instructor					
0479	1	To be arranged				Handler J
	545	SEM IN LINGUISTICS				02.0 to 03.0 Cr
0480	1	To be arranged				Bender L
	565	SEM-CULT CHG & DEV				03.0 Cr
0481	1	To be arranged				Muller J
	567	SEM-ANTH THEO, METH				03.0 Cr
0482	1	To be arranged				
	576	SEM-ANTH RES DESIGN				02.0 to 03.0 Cr
0483	1	To be arranged				
	585	READINGS IN ANTH				01.0 to 03.0 Cr
0484	700	To be arranged				
	590	INTERN-CONSERV ARCH				01.0 to 12.0 Cr
0485	700	To be arranged				
	597	FIELDWORK IN ANTH				01.0 to 12.0 Cr
0486	700	To be arranged				
	599	THESIS				01.0 to 06.0 Cr
0487	700	To be arranged				
	600	DISSERTATION				01.0 to 12.0 Cr
0488	700	To be arranged				

Architectural Technology (ARCH)

111 ARCHITECT DRAFTING					07.5 Cr
0489	1	08.00-11.50	M W F	0721	107
0490	2	08.00-11.50	M W F	0721	108
0491	3	01.00-04.50	M W F	Tech A	221
0492	4	01.00-04.50	M W F	0721	108
112 ARCHITECT GRAPHICS					03.5 Cr
0493	1	08.00-10.50	T Th	Tech A	209
0494	2	08.00-10.50	T Th	0721	107
0495	3	08.00-10.50	T Th	0721	108
0496	4	01.00-03.50	T Th	Tech A	209
0497	5	02.00-04.50	T Th	0721	107
113 ARCHITECTURAL HIST					02.0 Cr
0498	1	12.00	T Th	Tech A	111
214 ARCH DRAWINGS II					06.0 Cr
Prereq: 124					
0499	1	08.00-10.50	M W F	Tech A	221
0500	2	08.00-10.50	M W F	Tech A	209
0501	3	01.00-03.50	M W F	Tech A	209
215 ARCHITECT DESIGN II					04.0 Cr
Prereq: 125					
0502	1	08.00-10.50	T Th	Tech A	221
0503	2	01.00-03.50	T Th	Tech A	221
216 ARCHITECT ENGR I					04.0 Cr
Prereq: STC 105a,b, STC 107a,b					
0504	1	11.00	MTWTh	Tech A	209
0505	2	04.00	MTWTh	Tech A	209
217 ARCHITECTURAL SYST					02.0 Cr
Prereq: STC 107a,b					
0506	1	12.00	M W	Tech A	221

¹Elective Pass/Fail ²Mandatory Pass/Fail

218 SITE ENGINEERING						03.0 Cr
Prereq: STC 105a,b						
0507	1	08.00-10.50	T Th	F1	107	
0508	2	01.00-03.50	T Th	F1	107	
Art (ART)						
100A BASIC STUDIO						04.0 Cr
0530	1	08.00-09.50	M W F	Allyn	102 Feldman	
0531	2	10.00-11.50	M W F	Allyn	102	
0532	3	11.00-01.50	T Th	Allyn	102	
0533	4	12.00-01.50	M W F	Allyn	102 Greenfield	
0534	5	02.00-03.50	M W F	Allyn	102 Bernstein	
0535	6	06.00-08.50 pm	M W	Allyn	102 Greenfield	
100B BASIC STUDIO						04.0 Cr
0536	1	08.00-10.50	T Th	0549	101	
0537	2	11.00-01.50	T Th	0549	101	
0538	3	12.00-01.50	M W F	0549	101	
0539	4	02.00-03.50	M W F	0549	101 Addington A	
0540	5	02.00-04.50	T Th	0549	101 Sullivan M	
0541	6	04.00-05.50	M W F	0549	101 Addington A	
107 FUNDAMENTALS OF ART						03.0 Cr
0542	1	12.35-01.50	T Th	Park	124 Beene P	
200 BEGINNING DRAWING						02.0 Cr
Prereq: 100a, 107						
0543	1	08.00-10.50	T	Allyn	106 Wood D	
0544	2	08.00-10.50	Th	Allyn	106	
0545	3	02.00-04.50	T	Allyn	106 Wood D	
0546	4	02.00-04.50	W	Allyn	106 Link	
201 BEGINNING PAINTING						02.0 Cr
Prereq: 100a, 107						
0547	1	11.00-01.50	T	Allyn	106	
0548	2	02.00-04.50	F	Allyn	106 Greenfield	
0549	3	02.00-04.50	M	Allyn	106 Link	
203 BEGINNING SCULPTURE						02.0 Cr
Prereq: 100b, 107						
0550	1	06.00-08.50 pm	M	0549	101	
0551	2	06.00-08.50 pm	T	0549	101	
0552	3	06.00-08.50 pm	W	0549	101	
0553	4	06.00-08.50 pm	Th	0549	101	
204 BEGINNING CERAMICS						02.0 Cr
Prereq: 100b, 107						
0554	1	10.00-12.50	M	Pull I	105	
0555	2	02.00-04.50	W	Pull I	105 Deller	
0556	3	06.00-08.50 pm	M	Pull I	105	
0557	4	06.00-08.50 pm	W	Pull I	105 Deller	
205 BEG JEWELRY & METAL						02.0 Cr
Prereq: 100b, 107						
0558	1	08.00-10.50	M	Pull I	105	
0559	2	08.00-10.50	W	Pull I	105	
0560	3	06.00-08.50 pm	T	Pull I	105	
0561	4	06.00-08.50 pm	Th	Pull I	105	
206 BEGINNING FIBERS						02.0 Cr
Prereq: 100b, 107						
0562	1	08.00-10.50	M	Pull I	105	
0563	2	08.00-10.50	W	Pull I	105	
0564	3	08.00-10.50	F	Pull I	105	
0565	4	06.00-08.50 pm	M	Pull I	105	
207 SURVEY OF ART HIST						03.0 Cr
0566	1	04.00	M W F	Lawson	151 Mavigliano G	
217 METH-ART HIS & CRIT						02.0 Cr
Prereq: Restr to art history majors only						
0567	1	02.00	M W	Allyn	103 Mavigliano G	
258 WORK EXPERIENCE						01.0 to 30.0 Cr ²
0568	700	To be arranged				
Restr to consent of director						
300 INTERMED DRAWING						04.0 Cr
Prereq: 200						
0569	1	08.00-09.50	M W F	Allyn	210 Link	
0570	2	08.00-09.50	M W F	Allyn	106 Paulson	
0571	3	11.00-01.50	T Th	Allyn	210 Littlefield	
0572	4	12.00-01.50	M W F	Allyn	106 Fink	
301 INTERMED PAINTING						04.0 Cr
Prereq: 201						
0573	1	10.00-11.50	M W F	Allyn	210 Bernstein	

0574	2	02.00-04.50		T	Th	Allyn	210	Littlefield	
302A BEG PRINT-ETCHING									04.0 Cr
Prereq: 100a&b, 107									
0575	1	10.00-11.50		M	W	F	Allyn	206	Feldman J
302B BEG PRINT-LITHOG									04.0 Cr
Prereq: 100a&b, 107									
0576	1	12.00-01.50		M	W	F	Allyn	206	Link L
302C BEG PRINT-SILKSCR									04.0 Cr
Prereq: 100a&b, 107									
0577	1	02.00-03.50		M	W	F	Allyn	202	
303A INTERMED SCULPTURE									04.0 Cr
Prereq: 203									
0578	1	10.00-11.50		M	W	F	0549	101	Addington
304A CERAMICS-INTERMED									04.0 Cr
Prereq: 204									
0579	1	01.00-03.50			T	Th	Pull I	105	Deller
304B CERAMICS-INTERMED									04.0 Cr
Prereq: 304a									
0580	1	08.00-10.50			T	Th	Pull I	105	Deller H
305A JEWELRY-INTERMED									04.0 Cr
Prereq: 205									
0581	1	11.00-12.50			M	W	F	Pull I	105
305B JEWELRY-INTERMED									04.0 Cr
Prereq: 305a									
0582	1	02.00-03.50			M	W	F	Pull I	105
306A WEAVING-INTERMED									04.0 Cr
Prereq: 206									
0583	1	12.00-01.50			M	W	F	Pull I	105
308 THEO & PHIL-ART ED									03.0 Cr
0584	1	09.00			M	W	F	Allyn	103
309 INDEPENDENT STUDY									02.0 to 12.0 Cr
Prereq: Complete all 100&200 level req in maj & consent inst									
0585	700	To be arranged							
318 CURRIC-ADMIN-ART ED									03.0 Cr
0586	1	12.00			M	W	F	Allyn	103
319 NONMAJ STUDIO-ART									03.0 Cr
0587	1	06.00-07.50pm			M	W		Allyn	102
To be arranged									
2 additional hours per week									
328 ART METH-EL & SEC I									03.0 Cr
0588	1	08.00-09.50			M	W		Allyn	112
329 19TH CENTURY ART									03.0 Cr
0589	1	04.00			M	W	F	Lawson	101
339 ART SINCE 1945									03.0 Cr
0590	1	03.00			M	W	F	Lawson	201
348 STU-MEDIA,CURR,PHIL									03.0 Cr
0591	1	10.00-11.50			M	W		Allyn	112
0592	2	01.00-02.50			M	W		Allyn	112
0593	3	06.00-07.50 pm			M	W		Allyn	112
400 DRAWING I									02.0 to 16.0 Cr
Prereq: Ugrad- 300-8. Grad- cons maj adv in approp art disci									
0594	1	08.00-10.50			T	Th		Allyn	210
0595	2	02.00-03.50			M	W	F	Allyn	210
0596	3	04.00-05.50			M	W	F	Allyn	210
401 PAINTING I									02.0 to 16.0 Cr
Prereq: Ugrad- 301-8. Grad- cons maj adv in approp art disci									
0597	1	08.00-01.50				W		0549	101
0598	2	12.00-01.50			M	W	F	Allyn	210
402 PRINTMAKING I									02.0 to 16.0 Cr
Prereq: Ugrad- 302-8. Grad- cons maj adv in approp art disci									
0599	1	02.00-03.50			M	W	F	Allyn	206
403 SCULPTURE I									02.0 to 16.0 Cr
Prereq: Ugrad- 303-8. Grad- cons maj adv in approp art disci									
0600	1	08.00-09.50			M	W	F	0549	101
404 CERAMICS I									02.0 to 16.0 Cr
Prereq: Ugrad- 304-8. Grad- cons maj adv in approp art disci									
0601	1	08.00-09.50			M	W	F	Pull I	105
405 METALSMITHING I									02.0 to 16.0 Cr
Prereq: Ugrad- 305-8. Grad- cons maj adv in approp art disci									
0602	1	08.00-10.50			T	Th		Pull I	105

	406	FIBERS/WEAVING I	02.0 to 16.0 Cr
	Prereq: Ugrad- 306-8. Grad- cons maj adv in approp art disci		
0603	1	02.00-03.50 M W F Pull I	105 Lintault
	414	GLASSBLOWING I	02.0 to 16.0 Cr
	Prereq: Undergrad-consent of instr		
0604	1	03.00-04.50 M W F Pull I	105 Boysen B
	439	AMERICAN ART- WW II	03.0 Cr
0605	1	01.00 M W F Allyn	103
	447	INTRO TO MUSEOLOGY	03.0 Cr
	Prereq: Art major or consent of instructor		
0606	1	03.00 T H Ec	8 Johnson E
		02.00-03.50 Th H Ec	8
	449	RENAISSANCE ART	03.0 Cr
0607	1	09.35-10.50 T Th Allyn	103 Sullivan J
	457	WOMEN IN VISUAL ART	03.0 Cr
0608	1	04.00-05.15 M W Allyn	103 Greenfield S
	Above section \$10.00 screening fee		
	499	INDIVIDUAL PROBLEMS	02.0 to 16.0 Cr
	Prereq: Consent of instructor		
0609	700	To be arranged	
	500	DRAWING II	02.0 to 16.0 Cr
0610	1	To be arranged	
	501	PAINTING II	02.0 to 16.0 Cr
0611	1	To be arranged	
	502	PRINTMAKING II	02.0 to 16.0 Cr
0612	1	To be arranged	
	503	SCULPTURE II	02.0 to 16.0 Cr
0613	1	To be arranged	
	504	CERAMICS II	02.0 to 16.0 Cr
0614	1	To be arranged	
	505	METALSMITHING II	02.0 to 16.0 Cr
	Prereq: Consent of instructor		
0615	1	To be arranged	
	506	FIBERS/WEAVING II	02.0 to 16.0 Cr
	Prereq: Consent of instructor		
0616	1	To be arranged	
	507	READINGS IN ART HIS	03.0 Cr
0617	700	To be arranged	
	508	RESEARCH IN ART ED	02.0 to 03.0 Cr
	Prereq: Consent of instructor		
0618	1	06.00-08.50 pm Th Allyn	113
	514	GLASSBLOWING II	02.0 to 16.0 Cr
	Prereq: Consent of instructor		
0619	1	To be arranged	
	517	CONCEPTS IN ART HIS	03.0 Cr
0620	1	To be arranged	
	599	THESIS	02.0 to 06.0 Cr
0621	700	To be arranged	

Automotive Technology (AUT)

101 BASIC AUTO ENG LAB						03.0 Cr
Prereq: Concurrent enrollment in 121						
0622	301	10.00-11.50	M W F	L2	108	Romack
		08.00-11.50	T Th	L2	108	
Above section meets Aug 22 - Sept 27						
0623	302	10.00-01.50	T Th	L2	108	Romack
		12.00-01.50	M W F	L2	108	
Above section meets Nov 1 - Dec 10						
0624	303	05.00-06.50	M W F	L2	108	Oloughlin
		03.00-06.50	T Th	L2	108	
Above section meets Aug 22 - Sept 27						
102 ADV AUTO ENGINE LAB						03.0 Cr
Prereq: 101, 121 and concurrent enrollment in 122						
0625	301	10.00-11.50	M W F	L2	108	Romack
		08.00-11.50	T Th	L2	108	
Above section meets Sept 28 - Nov 1						
0626	302	05.00-06.50	M W F	L2	108	Oloughlin
		03.00-06.50	T Th	L2	108	
Above section meets Sept 28 - Nov 1						
103 AUTO BRAKE SYST LAB						03.0 Cr
Prereq: Concurrent enrollment in 123						
0627	301	03.00-04.50	M W F	L1	108	Cash
		01.00-04.50	T Th	L1	108	
Above section meets Sept 28 - Nov 1						

104 AUTO CHAS & SUS LAB			03.0 Cr
Prereq: Concurrent enrollment in 124			
0628	301 10.00-11.50	M W F L1	108 Cash
	08.00-11.50	T Th L1	108
Above section meets Nov 2 - Dec 9			
0629	302 03.00-04.50	M W F L1	105
	01.00-04.50	T Th L1	105
Above section meets Aug 23 - Sept 27			
0630	303 05.00-06.50	M W F L1	108 Oloughlin
	03.00-06.50	T Th L1	108
Above section meets Nov 2 - Dec 9			
105 AUTO ENG ELECTR LAB			03.0 Cr
Prereq: Concurrent enrollment in 125			
0631	301 12.00-01.50	M W F L2	108 White
	10.00-01.50	T Th L2	108
Above section meets Aug 23 - Sept 27			
0632	302 03.00-04.50	M W F L2	108 White
	01.00-04.50	T Th L2	108
Above section meets Nov 2 - Dec 9			
106 AUTO FUEL & IGN LAB			03.0 Cr
Prereq: Concurrent enrollment in 126-2			
0633	301 12.00-01.50	M W F L2	108 White
	10.00-01.50	T Th L2	108
Above section meets Sept 28 - Nov 1			
115 RELATED SHOP LAB			02.0 Cr
0634	201 08.00-09.50	W F M4	109 Tregoning
Above section meets Aug 22 - Oct 12			
0635	202 01.00-02.50	T Th M4	109 Tregoning
Above section meets Oct 13 - Dec 9			
121 BASIC AUTO ENG THEO			02.0 Cr
Prereq: Concurrent enrollment in 101			
0636	301 08.00-09.50	M W F L2	105 Romack
Above section meets Aug 23 - Sept 27			
0637	302 10.00-11.50	M W F L2	105 Romack
Above section meets Nov 2 - Dec 9			
0638	303 03.00-04.50	M W F L2	105
Above section meets Aug 23 - Sept 27			
122 ADV AUTO ENGINE THE			02.0 Cr
Prereq: 101, 121 and concurrent enrollment in 102			
0639	301 08.00-09.50	M W F L2	105 Romack
Above section meets Sept 28 - Nov 1			
0640	302 03.00-04.50	M W F L2	105 Oloughlin
Above section meets Sept 28 - Nov 1			
123 AUTO BRAKE SYST THE			02.0 Cr
Prereq: Concurrent enrollment in 103			
0641	301 01.00-02.50	M W F L1	105 Cash
Above section meets Sept 28 - Nov 1			
124 AUTO CHAS & SUSP TH			02.0 Cr
Prereq: Concurrent enrollment in 104			
0642	301 08.00-09.50	M W F L1	105 Cash
Above section meets Nov 2 - Dec 9			
0643	302 01.00-02.50	M W F L1	105 Cash
Above section meets Aug 23 - Sept 27			
0644	303 03.00-04.50	M W F L1	105 Oloughlin
Above section meets Nov 2 - Dec 9			
125 AUTO ENG ELECT THEO			02.0 Cr
Prereq: Concurrent enrollment in 105			
0645	301 10.00-11.50	M W F L2	105 White
Above section meets Aug 23 - Sept 27			
0646	302 01.00-02.50	M W F L2	105 White
Above section meets Nov 2 - Dec 9			
126 AUTO FUEL & IGN THE			02.0 Cr
Prereq: Concurrent enrollment in 106-2			
0647	301 10.00-11.50	M W F L2	105 White
Above section meets Sept 28 - Nov 1			
201 BASIC AUTO TRAN LAB			03.0 Cr
Prereq: Concurrent enrollment in 221-2			
0648	301 10.00-11.50	M W F L2	108 Albert
	08.00-11.50	T Th L2	108
Above section meets Nov 2 - Dec 9			
0649	302 03.00-04.50	M W F L2	108 Albert
	01.00-04.50	T Th L2	108
Above section meets Aug 23 - Sept 27			
202 ADV AUTO TRANS LAB			03.0 Cr
Prereq: 201, 221 and concurrent enrollment in 222-2			
0650	301 03.00-04.50	M W F L2	102 Albert
	01.00-04.50	T Th L2	102
Above section meets Sept 28 - Nov 1			

203 AUTO PWR ACCESS LAB			03.0 Cr
Prereq: 105, 125, and concurrent enrollment in 223			
0651	301 10.00-11.50	M W F L2	108 Kazda
	08.00-11.50	T Th L2	108
Above section meets Sept 28 - Nov 1			
0652	302 12.00-01.50	M W F L2	102 Kazda
	10.00-01.50	T Th L2	102
Above section meets Nov 2 - Dec 9			
204 AUTO AIR COND LAB			03.0 Cr
Prereq: 105, 125, and concurrent enrollment in 224			
0653	301 10.00-11.50	M W F L2	108 Kazda
	08.00-11.50	T Th L2	108
Above section meets Aug 23 - Sept 27			
205 AUTO EMISS CONT LAB			03.0 Cr
Prereq: 105, 106, 125, 126, and concurrent enrl in 225			
0654	301 12.00-01.50	M W F L1	108 Dettman
	10.00-01.50	T Th L1	108
Above section meets Aug 23 - Sept 27			
0655	302 03.00-04.50	M W F L1	108
	01.00-04.50	T Th L1	108
Above section meets Nov 2 - Dec 9			
206 AUTO DR TRAINS LAB			03.0 Cr
Prereq: Concurrent enrollment in 226			
0656	301 12.00-01.50	M W F L1	108 Dettman
	10.00-01.50	T Th L1	108
Above section meets Sept 28 - Nov 2			
221 BASIC AUT TRANS THE			02.0 Cr
Prereq: Concurrent enrollment in 201			
0657	301 08.00-09.50	M W F L2	105 Albert
Above section meets Nov 2 - Dec 9			
0658	302 01.00-02.50	M W F L2	105 Albert
Above section meets Aug 23 - Sept 27			
222 ADV AUT TRANS THEO			02.0 Cr
Prereq: 201,221,and concurrent enrollment in 202			
0659	301 01.00-02.50	M W F L2	105 Albert
Above section meets Sept 28 - Nov 1			
223 AUTO PWR ACCESS THE			02.0 Cr
Prereq: 105, 125, and concurrent enrollment in 203			
0660	301 08.00-09.50	M W F L2	105 Kazda
Above section meets Sept 28 - Nov 1			
0661	302 10.00-11.50	M W F L2	105
Above section meets Nov 2 - Dec 9			
224 AUTO AIR COND THEO			02.0 Cr
Prereq: 105, 125, and concurrent enrollment in 204			
0662	301 08.00-09.50	M W F L2	105 Kazda
Above section meets Aug 23 - Sept 27			
225 AUTO EMIS CONTR THE			02.0 Cr
Prereq: 105, 106, 125, 126, and concurrent enrol in 205			
0663	301 10.00-11.50	M W F L1	105 Dettman
Above section meets Aug 23 - Sept 27			
0664	302 01.00-02.50	M W F L1	105 Dettman
Above section meets Nov 2 - Dec 9			
226 AUTO DR TRAINS THEO			02.0 Cr
Prereq: Concurrent enrollment in 206			
0665	301 10.00-11.50	M W F L1	105 Dettman
Above section meets Sept 28 - Nov 1			
Aviation Technology (AT)			
110 AIRC STRUCT-FAB&REP			04.0 Cr
0666	1 08.00	T Th Avtech	118 Kolkmeier
	08.00-09.50	M F Avtech	131 Kolkmeier R
0667	2 11.00	M W Avtech	127 Kolkmeier
	03.00-04.50	W Avtech	119 Kolkmeier
	11.00-12.50	F Avtech	131 Kolkmeier
0668	3 04.00	T Th Avtech	118 Kolkmeier
	02.00-03.50	T Th Avtech	131 Kolkmeier
111 MATER & METAL PROC			05.0 Cr
0669	1 09.00	M Avtech	117 Rich
	03.25-04.50	M W Avtech	118 Rich
	01.00-02.50	T Avtech	135 Rich
	02.00-03.50	Th Avtech	135 Rich
0670	2 11.00	MTWTh Avtech	117 Rich
	09.00-10.50	T Th Avtech	127 Rich
0671	3 02.00	M W F Avtech	117 Rich
	08.00-11.50	F Avtech	135 Rich
	03.00	T Avtech	117 Rich

112 AIRCRFT ELECTRICITY					04.0 Cr
0672	1	08.00-09.50	T Th	Avtech	136
		08.00	M F	Avtech	136
0673	2	09.00	M W	Avtech	117 Erkman
		08.00-09.50	F	Avtech	128
		02.00-03.50	M	Avtech	128
0674	3	09.00	W F	Avtech	117 Whitacre
		10.00-11.50	W F	Avtech	128 Whitacre
0675	4	12.00	M	Avtech	116 Whitacre
		10.00	T	Avtech	116
		01.00-02.50	T Th	Avtech	128
113 AIRCRFT INSTR & FAR					05.0 Cr
0676	1	08.00	M W F	Avtech	127 Verner
		03.00-04.50	T F	Avtech	127 Verner
0677	2	08.00	T Th	Avtech	127 Verner
		10.00	M	Avtech	127
		10.00-12.30	T	Avtech	127
		12.00	M	Avtech	127
0678	3	09.00	MTW	Avtech	127 Verner
		09.00-10.50	Th	Avtech	127 Verner
		10.00-11.50	W	Avtech	127 Verner
0679	4	02.00	TWTh	Avtech	127 Verner
		10.00-11.50	F	Avtech	127 Verner
		03.00-04.50	Th	Avtech	127 Verner
201 APPLIED SCIENCE					02.0 Cr
0680	1	08.00	M W	Avtech	117 Kolkmeier
0681	2	10.00	M	Avtech	136 Kolkmeier
		03.00	F	Avtech	136
0682	3	01.00	ThF	Avtech	117 Kolkmeier
203 AERODYN,WT & BALANC					05.0 Cr
0683	1	09.00	M W F	Avtech	116 Ellingsworth
		10.00-12.50	F	Avtech	132
		04.00	W	Avtech	127 Ellingsworth
0684	2	10.00	MTWTh	Avtech	117
		02.00-04.50	M	Avtech	135
0685	3	01.00	MTWTh	Avtech	118 Cannon
		02.00-04.50	F	Avtech	135 Cannon
204 HYDRAULICS(AIRCRAFT)					04.0 Cr
0686	1	08.00	T Th	Avtech	118 Ohman
		09.00-10.50	T Th	Avtech	132
0687	2	09.00	T Th	Avtech	117 Ellingsworth
		02.00-03.50	T Th	Avtech	132
0688	3	04.00	T Th	Avtech	117 Ellingsworth
		01.00-04.50	F	Avtech	132
205 CAB ENVIR & JET TRA					05.0 Cr
0689	1	08.00	M W	Avtech	119 Ohman
		09.00	M W	Avtech	119
		08.00-10.50	F	Avtech	119
0690	2	12.00	MTWTh	Avtech	118 Ohman
		02.00-04.50	M	Avtech	135
0691	3	01.00	MTWTh	Avtech	119 Ohman
		02.00-04.50	W	Avtech	119
210 A&P ELEC & IGN SYST					07.0 Cr
0692	1	08.00-10.50	Th	Avtech	137 Whitacre
		01.00-03.50	F	Avtech	137
		02.00	MTWTh	Avtech	118
0693	2	01.00	MTWTh	Avtech	127 Whitacre
		08.00-10.50	MT	Avtech	127
0694	3	01.00	MTWTh	Avtech	117
		03.00-04.50	TWTh	Avtech	137
211 RECIPROC POWERPLANT					05.0 Cr
0695	1	11.00	M W F	Avtech	117 Burkey
		08.00-10.50	W F	Avtech	134
0696	2	11.00	M WTh	Avtech	117
		08.00-10.50	Th	Avtech	135
		02.00-04.50	F	Avtech	135
0697	3	01.00	MTW	Avtech	127 Burkey
		08.00-09.50	MT F	Avtech	134
212 CARB,LUBRIC & FUEL					05.0 Cr
0698	1	02.00	MTW	Avtech	116 Cannon
		08.00-09.50	Th	Avtech	135
		12.00-01.50	F	Avtech	135
0699	2	02.00	MTW	Avtech	116
		08.00-09.50	T Th	Avtech	137
0700	3	03.00	M WTh	Avtech	117 Cannon
		08.00-11.50	W	Avtech	131

214 PROPELLERS						04.0 Cr
0701	1	10.00	T Th	Avtech	136 Burkey	
		02.00-03.50	M W	Avtech	135	
0702	2	04.00	T Th	Avtech	116 Burkey	
		02.00-03.50	T Th	Avtech	135	
215 POWERPLANT TESTING						05.0 Cr
0703	1	10.00	M W F	Avtech	118	
		08.00-09.50	M W	Avtech	135	
		10.00	F	Avtech	116	
0704	2	03.00	M W F	Avtech	116	
		01.00-02.50	W F	Avtech	135	
216 JET PROPUL POWERPLT						06.0 Cr
0705	1	10.00	MTWTh	Avtech	116 Darosa	
		08.00-09.50	M W	Avtech	133	
0706	2	12.00	MTWTh	Avtech	116	
		08.00-09.50	T F	Avtech	133	
301 HELI THEO,MAIN PRAC						06.0 Cr
Prereq: FAA airframe and powerplant technician licenses						
0707	1	11.00	MTWThF	Avtech	119 Schafer J	
302 HELI GENRL MAIN LAB						10.0 Cr
Prereq: Concurrent enrollment in 301						
0708	1	08.00-10.50	MTWThF	Avtech	135 Schafer J	
Avionics Technology (ATA)						
232 AVI-ELECT CIRCUITS						10.0 Cr
Prereq: AT 210, ELT 102 & concurrent enrollment in ATA 233						
0709	1	10.00-11.50	MTWTh	Avtech	106 Haltsel	
		08.00	MTWTh	Avtech	106	
235 FLIGHT SYST THEORY						06.0 Cr
0710	1	09.00-10.50	F	Avtech	106 Haltsel	
		09.00	MTWTh	Avtech	106	
236 AVIONICS LAB III						05.0 Cr
0711	1	01.00-02.50	MTWThF	Avtech	106 Birkhead	
0712	2	03.00-04.50	MTWThF	Avtech	106 Birkhead	
Biology (BIOL)						
305 GENET-CLASS & MOLEC						03.0 Cr
0737	1	08.00	M W F	Lawson	171 Englert D	
306 CELL PHYSIOLOGY						03.0 Cr
0738	1	10.00	M W F	Lawson	201 Stotler B	
307 ENVIRONMENTAL BIOL						03.0 Cr
Prereq: Advanced standing in biology						
0739	1	12.00	M W F	Faner	1326 Lefebvre	
0740	2	02.00	M W F	Lawson	121 Robertson	
308 ORGAN-FUNCTION BIOL						03.0 Cr
0741	1	11.00	M W F	Lawson	201 Mickus	
0742	2	03.00	M W F	Wham	302 Shepherd	
315 HISTORY OF BIOLOGY						02.0 Cr
0743	1	09.00	T Th	LS II	256 Galbreath	
Black American Studies (BAS)						
230 INTRO-BLACK SOCIOL						03.0 Cr
Prereq: GSB 109						
0750	1	10.00	M W F	H Ec	120 Jones M	
311A BLK AM HIST TO 1865						03.0 Cr
0751	1	09.35-10.50	T Th	Faner	1026 Charles E	
Above sect crosslisted withchist&362a						
314A HISTORY OF W.AFRICA						03.0 Cr
0752	1	11.00-12.15	T Th	Faner	1026 Charles E	
Above sect crosslisted with&hist&362a						
332 BLK AMER & THE LAW						03.0 Cr
0753	1	06.00-07.25 pm	T Th	Pull	229	
333 THE BLACK FAMILY						04.0 Cr
Prereq: 230 or junior standing						
0754	1	02.00	MTW F	Pull	41 Jones M	
336 THE BLK PERSONALITY						04.0 Cr
Prereq: Consent of dept						
0755	1	03.00-04.50	T Th	Pull	37 Cox B	
345 LAW & CIVIL LIBERT						03.0 Cr
0756	1	11.00	M W F	Faner	1026	
Above section crosslisted with&pols 332						
391 SOC SERV & MIN GRPS						02.0 Cr
0757	1	03.00-04.50	W	Pull	39	
Crosslisted with&sw 391						

399	INDEPEND STUDY-BAS	03.0 to 05.0 Cr ¹
Prereq: Consent of instructor		
0758	1 To be arranged	
430	BLK POLIT SOCIALIZ	03.0 Cr
Prereq: 230,jr or sr stand,or consent of dept		
0759	1 09.00 M W F Pull	41 Jones M
455	REHB SERV-SPEC POP	02.0 to 12.0 Cr
0760	1 02.00-03.50 W Cl	326
Crosslisted with&rehb&445a		
480	SEMINAR-BLK STUDIES	04.0 Cr
Prereq: GSB 109 or consent of dept		
0761	1 03.00-04.50 M W Faner	2206 Sturgis G
499	SPECIAL READ IN BAS	01.0 to 05.0 Cr
Prereq: Consent of instructor		
0762	1 To be arranged	

Botany (BOT)

160	INTEGRATED SCIENCE	03.0 Cr
0773	1 09.00 M W Wham	303 Pappelis A
	08.00-09.50 T LS II	404
200	GENERAL BOTANY	03.0 Cr
0774	1 09.00 M W F Lawson	141
Instructors- Matten, Schmid, Tindall, Yopp		
0775	2 10.00 M W F Lawson	141
201	GENERAL BOTANY-LAB	01.0 Cr
Prereq: 200 or concurrent enrollment		
0776	1 08.00-09.50 M LS II	480
0777	2 08.00-09.50 T LS II	480
0778	3 08.00-09.50 W LS II	480
0779	4 10.00-11.50 M LS II	480
0780	5 10.00-11.50 T LS II	480
0781	6 10.00-11.50 W LS II	480
0782	7 12.00-01.50 M LS II	480
0783	8 12.00-01.50 T LS II	480
0784	9 12.00-01.50 W LS II	480
0785	10 02.00-03.50 M LS II	480
0786	11 02.00-03.50 T LS II	480
0787	12 02.00-03.50 W LS II	480
0788	13 04.00-05.50 M LS II	480
0789	14 04.00-05.50 T LS II	480
0790	15 04.00-05.50 W LS II	480
204	BOT-PLANT DIVERSITY	03.0 Cr
Prereq: 200 or consent of instr		
0791	1 02.00 M W F LS I	133 Tindall & Stotler R
205	PLANT DIVERSITY LAB	01.0 Cr
Prereq: 204 or concurrent enrollment		
0792	1 08.00-09.50 Th LS II	480
0793	2 10.00-11.50 Th LS II	480
0794	3 12.00-01.50 Th LS II	480
0795	4 02.00-03.50 Th LS II	480
258	WORK EXPERIENCE	02.0 to 08.0 Cr
Prereq: Approval by dept chairman prior to enrollment		
0796	700 To be arranged	
304	PLANT CLASSIFICAT	03.0 Cr
Prereq: 200 or equiv		
0797	1 09.00 Th Wham	112 Ugent D
	08.00-09.50 M W LS II	404 Ugent D
0798	2 09.00 Th Wham	112
	10.00-11.50 M W LS II	404
320	ELEMENTS-PLANT PHSL	04.0 Cr
Prereq: 200;organic chemistry or minor in chemistry		
0799	1 08.00 M W LS II	450 Schmid W
	08.00-09.50 T Th LS II	457
0800	2 08.00 M W LS II	450 Schmid W
	10.00-11.50 T Th LS II	457
337	ECOLOGY LABORATORY	02.0 Cr
Prereq: BIOL 307 or equivalent		
0801	1 08.00-11.50 F LS II	480 Robertson P
390	READING IN BOTANY	01.0 to 03.0 Cr
Prereq: Consent of departmental chmn		
0802	700 To be arranged	

391	SPEC PROBS IN BOT	01.0 to 04.0 Cr
Prereq: Consent of dept chairman		
0803	700 To be arranged	
400	PLANT ANATOMY	04.0 Cr
Prereq: 200 or consent of instructor		
0804	1 11.00 M W LS II	430 Bissing D
	10.00-11.50 T Th LS II	404
405	THE FUNGI	04.0 Cr
Prereq: 200 or equivalent		
0805	1 10.00 M W Wham	307 Sunberg W
	01.00-02.50 T Th LS II	404
410	BRYOPHYTES & LICHEN	03.0 Cr
Prereq: 200 or equivalent or consent of instructor		
0806	1 12.00 W LS II	404 Stotler R
	08.00-11.50 F LS II	404
	12.00-02.00 M LS II	404
12:00-2:00p.m. Monday optional		
414	PALEOBOTANY	01.0 to 02.0 Cr
Prereq: 400 or consent of instructor		
0807	1 To be arranged	Matten
425A	ADVANCED PLANT PHSL	05.0 Cr
Prereq: 320 and consent of instructor		
0808	1 01.00 M W F Ag	170 Yopp J
	08.00-09.50 T Th LS II	453
440	GRASSLAND ECOLOGY	03.0 Cr
Prereq: 304 and BIOL 307 or equivalents		
0809	1 02.00 M W LS II	430 Voigt
	01.00-04.50 F LS II	480
443	FOREST ECOLOGY	04.0 Cr
Prereq: BIOL 307 or equivalent or consent of instructor		
0810	1 09.00 M W F Ag	224 Ashby W
To be arranged		
Saturday laboratory		
449	ELEMENTS-TAXONOMY	02.0 Cr
Prereq: 304 or equivalent or consent of instructor		
0811	1 12.00 Th Wham	312 Ugent
	02.00-04.50 M LS II	404
456	INTRODUCTORY PATH	04.0 Cr
0812	1 12.00 T Th LS II	430 Pappelis A
	03.00-04.50 T LS II	404
	08.00-09.50 Th LS II	404
462	SCI PROCESS-TCH N-8	04.0 Cr
Prereq: Teacher education or consent of instructor		
0813	1 06.00-09.30 pm M Pull	304 Tomera & Mohlenbrock
Crosslisted with CIM 427		
490	SCI & BIOL PHOTOG	03.0 Cr
Prereq: Consent of instructor		
0814	1 12.00-01.50 T Th LS II	404 Richardson
492	HONORS IN BOTANY	02.0 to 06.0 Cr
Prereq: Cons of dept chrnm		
0815	700 To be arranged	
503A	ADV ANGIOS TAXONOMY	05.0 Cr
Prereq: Consent of instructor		
0816	1 To be arranged	Mohlenbrock
524	ADV PLANT GENETICS	02.0 Cr
Prereq: Biology 305 or equivalent		
0817	1 08.00 M W Ag	170 Myers
Crosslisted with PLSS 524		
543	TREE GROWTH	02.0 Cr
Prereq: 320 or 443 or Forestry 331 or equivalent		
0818	1 08.00 W Ag	218
	02.00-04.50 F LS II	404
570	GRAD READINGS-BOT	02.0 to 03.0 Cr
Prereq: Consent of instructor		
0819	1 02.00 M W LS II	457 Stotler B
	03.00-04.50 T LS II	404
Above section for 3 credits		
0820	700 To be arranged	
580	SEMINAR	01.0 Cr
0821	1 12.00 F Wham	302

¹Elective Pass/Fail ²Mandatory Pass/Fail

582	BRYOLOGY SEMINAR	01.0 Cr
Prereq: Consent of instructor		
0822	1 11.00 T LS II 453 Stotler R	
	01.00 F LS II 453	
590	INTRO TO RESEARCH	01.0 to 03.0 Cr
Prereq: Consent of instructor		
0823	700 To be arranged	
591	RESEARCH	02.0 to 09.0 Cr
Prereq: Consent of instructor		
0824	700 To be arranged	
599	THESIS	02.0 to 09.0 Cr
Prereq: Consent of instructor		
0825	700 To be arranged	
600	DISSERTATION	01.0 to 12.0 Cr
Prereq: Cons of instr		
0826	700 To be arranged	

Business Administration (BA)

410	ACCT CONCEPTS	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0827	1 08.00 M W F Cl 18 Tucker M	
430	BUSINESS FINANCE	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0828	1 To be arranged	
440	MANAGEMENT PROCESS	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0829	1 02.00-03.15 T Th Wham 303	
450	INTRO-MKTG CONCEPTS	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0830	1 03.35-04.50 T Th Cl 109 Dommermuth W	
451	METH-QUANT ANALYSIS	05.0 Cr
0831	1 09.00 MTWThF Nkrs C 116	
500	RES APPLI-BUS & ORG	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0832	1 08.00 M W F Wham 329	
0833	2 12.00 M W F Wham 312	
501	OPERATIONS RES I	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0834	1 09.00 M W F Cl 328	
0835	2 11.00 M W F Cl 328	
510	MANAGERL ACCT, CONTR	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0836	1 11.00-12.15 T Th Cl 18	
511	ACCOUNTING THEORY	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0837	1 01.00 M W F Cl 18	
533	INVESTMENTS CONCEPT	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0838	1 10.00 M W F Wham 317 Sprecher	
539	SEMINAR IN FINANCE	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0839	1 03.35-04.50 T Th Wham 329	
550	MARKETING MGT	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0840	1 01.00 M W F Wham 312 Adams	
0841	2 03.00 M W F Wham 312 Eckrich	
580	INTERNATL BUS OPER	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0842	1 02.00-03.15 T Th Wham 305 Elsaid	
591	INDEPENDENT STUDY	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0843	700 To be arranged	
598	BUSINESS POLICIES	03.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0844	1 09.35-10.50 T Th Faner 1226	
599	THESIS	03.0 to 06.0 Cr
Prereq: Enrol in MBA program or cons of instructor		
0845	700 To be arranged	

Business Education (BE)

203	ADV TYPEWRITING	02.0 Cr
Prereq: 202 or equiv		
0846	1 08.00 M W F Cl 21	
224	ADV SHORTHND & TRAN	03.0 Cr
Prereq: 223 or equiv		
0847	1 02.00 M W Cl 125	
	02.00 T Th Cl 21	
290	INTRO-BUSINESS EDUC	02.0 Cr
0848	1 04.00-05.50 M Wham 312 Anderson M	
316	COMM IN BUSINESS	02.0 Cr
0849	1 03.00 T Cl 21 Burger O	
	03.00 Th Cl 21	
317	INTRO TO DATA PROSC	03.0 Cr
0850	1 10.00 M W F Cl 24 Burger J	
326	EXEC SEC PROCEDURES	03.0 Cr
Prereq: 202 or equiv		
0851	1 01.00 M W F Cl 21 Anderson M	
341	CALCULATING MACH	02.0 Cr
0852	1 11.00 M W F Cl 125 Rahe H	
351	TEACH TYPEWRITING	02.0 Cr
Prereq: 203 or equiv		
0853	1 08.00 T Th Cl 21 Anderson M	
352	TEACH SHORT & TRANS	02.0 Cr
Prereq: 224 or equiv		
0854	1 09.00 T Th Cl 21 Burger J	
354	TCH OFF PRACT-MACH	02.0 Cr
Prereq: 326 or equiv & 341 or equiv		
0855	1 04.00 T Th Cl 21 Rahe H	
355	TCH BOOKPG & ACCT	02.0 Cr
Prereq: Accounting 222 or equivalent		
0856	1 01.00 T Th Wham 312 Rahe H	
457	TCH DISTRIB SKILLS	03.0 Cr
Prereq: Marketing 341 or 452		
0857	1 06.30-09.30 pm T Wham 305 Lemsar	
460	INDIV INSTR IN B E	03.0 Cr
Prereq: 290		
0858	1 06.30-09.30 pm W Wham 305	
510	IMPR INST SEC SUBJ	02.0 Cr
Prereq: 351 or 352 or 354		
0859	1 05.00-07.00 Th Cl 125 Anderson M	
593	INDIV RES IN BUS ED	02.0 to 04.0 Cr
Prereq: Consent of instructor		
0860	700 To be arranged	

Chemistry and Biochemistry (CHEM)

115	INTRO GENERAL CHEM	04.0 Cr
0866	1 01.00 T Th Nkrs B 440 Schmulbach C	
	01.00 M Nkrs C 218	
	02.00-04.50 W Nkrs C 207	
0867	2 01.00 T Th Nkrs B 440 Schmulbach C	
	01.00 M Nkrs C 218	
	08.00-10.50 T Nkrs C 207	
0868	3 01.00 T Th Nkrs B 440 Schmulbach C	
	01.00 W Nkrs C 218	
	02.00-04.50 M Nkrs C 207	
0869	4 01.00 T Th Nkrs B 440 Schmulbach C	
	01.00 W Nkrs C 218	
	08.00-10.50 Th Nkrs C 207	
140A	SURVEY OF CHEMISTRY	04.0 Cr
0870	1 08.00 M W F Nkrs B 240 Wotiz J	
	08.00-10.50 T Nkrs C 104	
Above section restricted to Dental Hygienists		
0871	2 08.00 M W F Nkrs B 240 Wotiz J	
	08.00-10.50 Th Nkrs C 104	
0872	3 08.00 M W F Nkrs B 240 Wotiz J	
	11.00-01.50 T Nkrs C 104	
0873	4 08.00 M W F Nkrs B 240 Wotiz J	
	11.00-01.50 Th Nkrs C 104	
0874	5 08.00 M W F Nkrs B 240 Wotiz J	
	02.00-04.50 T Nkrs C 104	
0875	6 12.00 M W F Nkrs B 240 Beyler R	
	11.00-01.50 T Nkrs C 102	
0876	7 12.00 M W F Nkrs B 240 Beyler R	
	08.00-10.50 Th Nkrs C 102	
0877	8 12.00 M W F Nkrs B 240 Beyler R	
	02.00-04.50 M Nkrs C 102	

0878	9	12.00	M	W	F	Nkrs B	240	Beyler R
		02.00-04.50		W		Nkrs C	102	
0879	10	12.00	M	W	F	Nkrs B	240	Beyler R
		02.00-04.50		Th		Nkrs C	102	
0880	11	02.00	M	W	F	Nkrs B	240	Hadley E
		02.00-04.50		T		Nkrs C	102	
Above section restricted to Dental Hygienists								
0881	12	02.00	M	W	F	Nkrs B	240	Hadley E
		02.00-04.50		Th		Nkrs C	104	
0882	13	02.00	M	W	F	Nkrs B	240	Hadley E
		08.00-10.50		T		Nkrs C	102	
0883	14	02.00	M	W	F	Nkrs B	240	Hadley E
		08.00-10.50			F	Nkrs C	102	
0884	15	02.00	M	W	F	Nkrs B	240	Hadley E
		11.00-01.50		Th		Nkrs C	102	
140B SURVEY OF CHEMISTRY							04.0 Cr	
Prereq: 140a								
0885	1	03.00	M	W	F	Park	124	Hargrave
		11.00-01.50		M		Nkrs C	207	
0886	2	03.00	M	W	F	Park	124	Hargrave
		11.00-01.50		T		Nkrs C	207	
0887	3	03.00	M	W	F	Park	124	Hargrave
		11.00-01.50		W		Nkrs C	207	
0888	4	03.00	M	W	F	Park	124	Hargrave
		11.00-01.50		Th		Nkrs C	207	
222A INTRO TO CHEM PRINC							04.0 Cr	
Prereq: One yr H.S. chem or 115								
0889	1	08.00	M	W	F	Nkrs B	440	Hinckley
		08.00-10.50		T		Nkrs C	106	
0890	2	08.00	M	W	F	Nkrs B	440	Hinckley
		08.00-10.50		T		Nkrs C	108	
0891	3	08.00	M	W	F	Nkrs B	440	Hinckley C
		08.00-10.50		Th		Nkrs C	106	
0892	4	08.00	M	W	F	Nkrs B	440	Hinckley C
		08.00-10.50		Th		Nkrs C	108	
0893	5	08.00	M	W	F	Nkrs B	440	Hinckley C
		02.00-04.50		T		Nkrs C	106	
0894	6	11.00	M	W	F	Tech A	111	Tyrrell
		11.00-01.50		T		Nkrs C	106	
0895	7	11.00	M	W	F	Tech A	111	Tyrrell
		11.00-01.50		T		Nkrs C	108	
0896	8	11.00	M	W	F	Tech A	111	Tyrrell
		11.00-01.50		Th		Nkrs C	106	
0897	9	11.00	M	W	F	Tech A	111	Tyrrell
		11.00-01.50		Th		Nkrs C	108	
0898	10	03.00	M	W	F	Nkrs B	440	Koster
		08.00-10.50		W		Nkrs C	106	
0899	11	03.00	M	W	F	Nkrs B	440	Koster
		02.00-04.50		T		Nkrs C	106	
0900	12	03.00	M	W	F	Nkrs B	440	Koster
		02.00-04.50		Th		Nkrs C	106	
0901	13	03.00	M	W	F	Nkrs B	440	Koster
		02.00-04.50		Th		Nkrs C	108	
222B INTRO TO CHEM PRINC							04.0 Cr	
Prereq: 222a								
0902	1	11.00	M	W	F	Nkrs B	240	Emptage
		08.00-10.50		T		Nkrs C	109	
0903	2	11.00	M	W	F	Nkrs B	240	Emptage
		11.00-01.50		T		Nkrs C	109	
0904	3	11.00	M	W	F	Nkrs B	240	Emptage
		02.00-04.50		Th		Nkrs C	109	
224 INTRO TO CHEM PRINC							05.0 Cr	
Prereq: One yr H.S. chem,or 115, and concurrent enrl in 225								
0905	1	10.00	M	T	W	Th	F	Nkrs B 240 Trimble
225 INTRO TO LAB TECH							02.0 Cr	
Prereq: One yr H.S. chem,or 115, and concurrent enrl in 224								
0906	1	09.00		T		Nkrs B	240	Caskey
		11.00-01.50		Th		Nkrs C	109	
0907	2	09.00		T		Nkrs B	240	Caskey
		02.00-04.50		T		Nkrs C	109	
0908	3	09.00		T		Nkrs B	240	Caskey
		02.00-04.50		Th		Nkrs C	109	
0909	4	09.00		T		Nkrs B	240	Caskey
		02.00-04.50		W		Nkrs C	109	
226 INTR-QUAN CHEM PRIN							05.0 Cr ¹	
Prereq: 222b,or 224 plus 225								
0910	1	11.00		M	W	F	Nkrs C	218 Caskey
		01.00-03.50		M	W		Nkrs C	408

¹Elective Pass/Fail ²Mandatory Pass/Fail

0911	2	11.00	M W F	Nkrs C	218	Caskey	
		01.00-03.50	T Th	Nkrs C	408		
340 SURVEY-ORGANIC CHEM							04.0 Cr
Prereq: 222b,or 224 plus 225, and concurrent enrl in 341							
0912	1	08.00	TWThF	Park	124	Hadley E	
341 ORGANIC CHEM LAB							02.0 Cr
Prereq: 222b,or 224 plus 225,and concurrent enrl in 340							
0913	1	08.00	M	Park	124	Arnold	
		02.00-04.50	W	Nkrs C	205		
0914	2	08.00	M	Park	124	Arnold	
		02.00-04.50	T	Nkrs C	205		
344 ORGANIC CHEMISTRY							04.0 Cr
Prereq: 222b, or 224 plus 225, and concurrent enrol in 345							
0915	1	02.00	TWThF	Nkrs B	440	Slocum D	
0916	2	03.00	TWThF	Nkrs B	240	Wotiz	
345 LAB TECHNIQUES							02.0 Cr
Prereq: 222b,or 224 plus 225,and concurrent enrol in 344							
0917	1	02.00	M	Nkrs B	440	Arnold	
		11.00-01.50	T	Nkrs C	203		
0918	2	02.00	M	Nkrs B	440	Arnold	
		08.00-10.50	T	Nkrs C	203		
0919	3	02.00	M	Nkrs B	440	Arnold	
		11.00-01.50	W	Nkrs C	203		
0920	4	02.00	M	Nkrs B	440	Arnold	
		08.00-10.50	W	Nkrs C	203		
0921	5	03.00	M	Nkrs B	440	Arnold	
		11.00-01.50	F	Nkrs C	203		
0922	6	03.00	M	Nkrs B	440	Arnold	
		08.00-10.50	Th	Nkrs C	203		
0923	7	03.00	M	Nkrs B	440	Arnold	
		11.00-01.50	Th	Nkrs C	203		
0924	8	03.00	M	Nkrs B	440	Arnold	
		08.00-10.50	W	Nkrs C	203		
375 UNDERGRAD SEMINAR							00.0 to 02.0 Cr
0925	1	To be arranged					
396A CHEMICAL PROBLEMS							02.0 Cr
Prereq: Consent of instr & 4 sem chem lab							
0926	700	To be arranged					
434 INSTRU ANALYT CHEM							04.0 Cr
Prereq: One semester of physical chemistry concurrently							
0927	1	01.00	T Th	Nkrs C	118	Cox J	
		10.00-12.50	T Th	Nkrs C	409		
0928	2	01.00	T Th	Nkrs C	118	Cox J	
		02.00-04.50	M W	Nkrs C	409		
446 QUAL ORGANIC ANALY							03.0 Cr
Prereq: 226 & either 348 & 349 or consent of instructor							
0929	1	11.00	M	Faner	2205	Myers C	
		08.00-10.50	T Th	Nkrs C	205		
450 SURVEY-BIOCHEMISTRY							04.0 Cr
Prereq: 346 and 347, or 348 and 349							
0930	1	02.00	M W F	Nkrs C	218	Hadler	
		02.00-04.50	T	Nkrs C	207		
0931	2	02.00	M W F	Nkrs C	218	Hadler	
		02.00-04.50	Th	Nkrs C	207		
451A BIOCHEMISTRY							03.0 Cr
Prereq: One year of organic chemistry							
0932	1	08.00	M W F	Faner	1136		
Instrs: Hargrave, Bolen,& Bemiller							
462A PHYS CHEM-THERMODYN							03.0 Cr
Prereq: 226, MATH 251;concur enrl 463a; MATH 305 recommend							
0933	1	01.00	M W F	Nkrs C	118	Emptage	
463A PHYSICAL CHEM LAB							02.0 Cr
Prereq: 226, MATH 251;concur enrl 462a; MATH 305 recommended							
0934	1	02.00-04.50	T Th	Nkrs C	304	Koster	
0935	2	02.00-04.50	M W	Nkrs C	304	Koster	
466 MOL STRUCT & SPECTR							03.0 Cr
Prereq: 462a,b							
0936	1	To be arranged					Koster
489 SPECIAL TOPICS-CHEM							01.0 to 03.0 Cr
Prereq: Consent of instructor and of chairman							
0937	1	To be arranged					

490 CHEMICAL LITERATURE				02.0 Cr
Prereq: 224, 225, 346 & 347 or 348 & 349				
0938	1	11.00	T Th Nkrs A	278 Trimble R
496 UGRAD RESEARCH-HONR				01.0 to 08.0 Cr
Prereq: 3.0 GPA, 5 sem chem lab, consent of instr & dep chrnm				
0939	700	To be arranged		
500 STRUC INORG, THE ORG				03.0 Cr
Prereq: 1 yr ugrad org & 411 or equiv ugrad adv inorg course				
0940	1	09.00	M W F Nkrs A	278 Trimble & Slocum
501 KINETICS & THERMODY				03.0 Cr
Prereq: One year of undergraduate physical chemistry				
0941	1	11.00	M W F Nkrs C	410 Bailey
511A ADV INORGANIC CHEM				03.0 Cr
Prereq: One yr phys chem, 411 or satisfac completion of 500				
0942	1	12.00	M W F Nkrs C	410 Hinckley C
539 ADV TOPICS-ANALYTIC				02.0 to 03.0 Cr
Prereq: 434				
0943	1	10.00	W F Faner	2367 Cox J
542 ADV ORGANIC CHEM				03.0 Cr
Prereq: 541				
0944	1	03.00	M W F Nkrs C	410 Meyers C
556A ADV BIOCHEMISTRY				03.0 Cr
Prereq: 451a, b or equiv & one semester physical chemistry				
0945	1	10.00	M W F Tech A	122 Bolen & Bailey
559 ADV TOPICS-BIOCHEM				02.0 to 03.0 Cr
Prereq: 451b				
0946	1	01.00	T Th Nkrs C	410 Schmit
562A QUANTUM CHEM-PRIN				03.0 Cr
Prereq: 1 yr ugrad phys chem or instr cons; MATH 406 recondm				
0947	1	To be arranged		
594A SP READ-CHEM-ANALYT				02.0 to 03.0 Cr
1 To be arranged				
594B SP READING-BIOCHEM				02.0 to 03.0 Cr
1 To be arranged				
594C SP READ-CHEM-INORG				02.0 to 03.0 Cr
1 To be arranged				
594D SP READ-CHEM-ORG				02.0 to 03.0 Cr
1 To be arranged				
594E SP READ-CHEM-PHYS				02.0 to 03.0 Cr
1 To be arranged				
595A ADV SEM-CHEM ANALYT				01.0 Cr
0953	1	04.00-05.50	M Nkrs C	118 Caskey
595B ADV SEM-BIOCHEM				01.0 Cr
0954	1	04.00-05.50	T Nkrs C	218 Schmit
595C ADV SEM-CHEM INORG				01.0 Cr
0955	1	04.00-05.50	W Nkrs C	218 Hinckley
595D ADV SEM-CHEM ORG				01.0 Cr
0956	1	04.00-05.50	F Nkrs C	218 Slocum
595E ADV SEM-CHEM PHYS				01.0 Cr
0957	1	04.00-05.50	Th Nkrs C	218 Emptage
597 PROFESSIONL TRAIING				01.0 to 15.0 Cr
Prereq: Graduate standing				
0958	1	To be arranged		
598 RESEARCH				01.0 to 12.0 Cr
Prereq: Consent of chairman				
0959	700	To be arranged		
599 THESIS				01.0 to 06.0 Cr
Prereq: Consent of chairman				
0960	700	To be arranged		
600 DISSERTATION				02.0 to 12.0 Cr
Prereq: 598				
0961	700	To be arranged		

Child and Family (C&F)

227 MARRIAGE & FAM LIV				03.0 Cr
0966	1	11.00	M W F H Ec	140B Eddleman
0967	2	02.00	M W F H Ec	206 Spees E

237 CHILD DEVELOPMENT				03.0 Cr
0968	1	01.00	M W F H Ec	140B Rogers S
240 CAREERS-PRESCH PROG				02.0 Cr
Prereq: 237 or equivalent or consent of instructor				
0969	1	01.00-02.50	Th H Ec	208 Kraft T
245 INTERPERS RELAT SEM				03.0 Cr
Prereq: Selection for preschool certif program				
0970	1	09.35-10.50	T Th H Ec	104 Ponton M
337 ADVANCED CHILD DEV				03.0 Cr
Prereq: 237				
0971	1	11.00	M W F H Ec	203 Ouedraogo
345 CHILD DEVELOP PRACT				03.0 Cr
Prereq: 237				
0972	1	04.00	T H Ec	203 Jones J
09.00-11.50				114C
0973	2	04.00	T H Ec	203 Jones J
09.00-11.50				114C
0974	3	04.00	T H Ec	203 Jones J
09.00-11.50				114C
0975	4	04.00	T H Ec	203 Jones J
09.00-11.50				114C
0976	5	04.00	T H Ec	203 Jones J
09.00-11.50				114C
0977	6	04.00	T H Ec	203 Jones J
01.00-03.50				114C
0978	7	04.00	T H Ec	203 Jones J
01.00-03.50				114C
0979	8	04.00	T H Ec	203 Jones J
01.00-03.50				114C
0980	9	04.00	T H Ec	203 Jones J
01.00-03.50				114C
0981	10	04.00	T H Ec	203 Jones J
01.00-03.50				114C
346 CHILD DEVELOP PRACT				03.0 Cr
Prereq: 345				
0982	1	04.00	M W F H Ec	203 Jones J
09.00-11.50				114C
0983	2	04.00	M W F H Ec	203 Jones J
09.00-11.50				114C
0984	3	04.00	M W F H Ec	203 Jones J
09.00-11.50				114C
0985	4	04.00	M W F H Ec	203 Jones J
09.00-11.50				114C
0986	5	04.00	M W F H Ec	203 Jones J
09.00-11.50				114C
0987	6	04.00	M W F H Ec	203 Jones J
01.00-03.50				114C
0988	7	04.00	M W F H Ec	203 Jones J
01.00-03.50				114C
0989	8	04.00	M W F H Ec	203 Jones J
01.00-03.50				114C
0990	9	04.00	M W F H Ec	203 Jones J
01.00-03.50				114C
0991	10	04.00	M W F H Ec	203 Jones J
01.00-03.50				114C
366 FAMILY DEVELOPMENT				03.0 Cr
Prereq: 227 or GSB 341				
0992	1	01.00	M W F H Ec	104 Eddleman J
408 WORKSHOP				03.0 Cr
0993	1	11.00-12.15	T Th H Ec	122 Spees E
Topic: Changing Roles of Woman				
0994	2	06.00-08.30 pm	M H Ec	201 Zunich M
Topic: Black child				
0995	3	06.00-08.30 pm	W H Ec	202 Kraft T
Topic: Creative Activities for Preschool Child				
0996	4	06.00-08.30 pm	W H Ec	201
Topic: Black families in white america				
410 HUMAN SEXUALITY				03.0 Cr
0997	1	06.00-08.30 pm	W H Ec	203 Ouedraogo
445 ADMIN PRE-SCHL PROG				03.0 Cr
Prereq: 345 and 346 or consent of instructor				
0998	1	06.00-08.30 pm	Th H Ec	202 Ponton M
456 INFANT DEVELOPMENT				03.0 Cr
Prereq: 237 or PSYC 301 or equivalent				
0999	1	03.00	M W F H Ec	202 Eddleman J
457 INFANT STIMUL, CARE				03.0 Cr
Prereq: 456 or concurrent enrollment				
1000	1	03.00	M W F H Ec	122 Eddleman J

466 PRACT PARENT-CHILD					03.0 Cr	
Prereq: 227,237 or equivalent						
1001	1	11.00-12.15	T Th	H Ec	106	Kraft T
471 FIELD EXPERIENCE					02.0 to 06.0 Cr	
Prereq: Consent of instructor						
1002	700	To be arranged				
481 READINGS					01.0 to 03.0 Cr	
Prereq: Cons of instr & chairman						
1003	700	To be arranged				
562 CHLD DEV-HOME & SCH					03.0 Cr	
1004	1	06.00-09.30 pm	Th	H Ec	122	Gulley B
566 INTERPER REL IN FAM					03.0 Cr	
1005	1	06.00-08.30 pm	W	H Ec	122	Spees E
571 RECENT RESEARCH					03.0 Cr	
1006	1	06.00-08.30 pm	T	H Ec	120	Ouedraogo
572 SPECIAL PROBLEMS					01.0 to 03.0 Cr	
Prereq: Consent of chairman						
1007	700	To be arranged				
599 THESIS					01.0 to 04.0 Cr	
1008	700	To be arranged				

Chinese (CHIN)

120A ELEMENTARY CHINESE					04.0 Cr ¹
1009	1	10.00	M WThF Faner	2008	Tai J
201A INTERMED CHINESE					05.0 Cr ¹
Prereq: One year college Chinese (CHIN 120b) or equiv					
1010	1	12.00	MTWThF Faner	2373	Tai & Chou
306 READINGS IN CHINESE					02.0 Cr
1011	1	To be arranged			Tai J

Cinema and Photography (C&P)

310 HIST OF STILL PHOTO					03.0 Cr ¹	
1015	1	08.00-09.15	T Th	Nkrs B	440	Swedlund
320 BASIC PHOTOGRAPHY					04.0 Cr ¹	
1016	1	10.00-11.50	M Th	Comm	1122	Gilmore
		10.00-11.50	T	Comm	1135	
Above sect Fine Arts Emphasis,non-maj by perm only *						
1017	2	10.00-11.50	M W	Comm	1122	Gilmore
		10.00-11.50	F	Comm	1135	
Above sect Fine Arts Emphasis,non-maj by perm only *						
1018	3	02.00	M W F	Comm	1122	
		01.00-02.50	Th	Comm	1135	
Above sect Professional Emphasis,non-maj by per only *						
1019	4	03.00-04.30	M W	Comm	1122	
		03.00-04.50	Th	Comm	1135	
Above sect Professional Emphasis,non-maj by perm only*						
1020	5	03.00-04.30	M F	Comm	1122	
		03.00-04.50	T	Comm	1135	
Above sect Professional Emphasis,non-maj by perm only*						
1021	6	03.00-04.20	T Th	Comm	1122	Petrillo
		03.00-04.50	W	Comm	1135	
Above sect Fine Arts Emphasis,non-maj by perm only *						
322 COLOR PHOTOGRAPHY					04.0 Cr ¹	
Prereq: 320 and consent of department						
1022	1	10.00-11.50	M W	Comm	1021	Petrillo
Above sect Fine Arts Emphasis *						
1023	2	03.00-04.50	T Th	Comm	1021	
Above section Professional Emphasis *						
351 MO PICT HIST & THEO					03.0 Cr ¹	
1024	1	03.00-04.50	M W	Lawson	231	
Note: Screening Fee \$10						
355 FILM PRODUCTION I					04.0 Cr ¹	
Prereq: 351 or concurrent enrollment for majors						
1025	1	09.00-10.50	M W	Comm	1116	Cocking
		09.00-10.50	Th	0834	113	
Note: Screening Fee \$10,non-maj by perm only						
1026	2	09.00-10.50	M W F	Comm	1116	Cocking
Note: Screening Fee \$10,non-maj by perm only						
1027	3	09.00-10.50	M W	Comm	1116	Cocking
		09.00-10.50	F	0834	113	
Note: Screening Fee \$10,non-maj by perm only						

356 FILM PRODUCTION II					04.0 Cr ¹	
Prereq: 355 and consent of department						
1028	1	01.00-02.50	MT F	Comm	1116	Covell
Note: Screening Fee,\$10						
1029	2	01.00-02.50	M Th F	Comm	1116	Covell
Note: Screening Fee,\$10						
360 FILM ANALY & CRIT					03.0 Cr ¹	
Prereq: 351						
1030	1	06.30-09.30 pm	T	Lawson	131	
Note: Screening Fee,\$10						
403 STUDIO PORTRAITURE					03.0 Cr ¹	
Prereq: 322 and consent of dept						
1031	1	01.00	M W F	Comm	1021	Horrell
		01.00-02.50	T	Comm	1135	
Note *						
405 COMMER/INDUS PHOTO					03.0 Cr ¹	
Prereq: 322 and consent of dept						
1032	1	12.00-01.50	T Th	Comm	1122	
Note*						
407 PUBLICATIONS PHOT I					03.0 Cr ¹	
Prereq: 322 and/or consent of dept						
1033	1	03.00	M W F	Comm	1021	Horrell
		04.00-05.50	M	Comm	1135	
Note*						
420 EXPERIM CAMERA TECH					03.0 Cr ¹	
Prereq: 322 and consent of dept						
1034	1	11.00-12.50	T Th	Comm	1021	Swedlund
Note*						
421 EXPER DARKROOM TECH					03.0 Cr ¹	
Prereq: 322 and consent of department						
1035	1	01.15-02.50	T Th	Comm	1021	Gilmore
Note*						
425 STUDIO WORKSHOP					03.0 to 09.0 Cr ¹	
Prereq: 322 and consent of dept						
1036	1	09.30-10.50	T Th	Comm	1021	Petrillo
Note: Enroll for 3 Cr. Topic: Advanced photography *						
1037	2	12.00-01.50	M W	Comm	1122	Swedlund C
Note: Enroll for 3 Cr. Topic: Reconstruction of Color*						
451 ADVANCE FILM THEORY					03.0 Cr ¹	
Prereq: 351,360 or consent of dept						
1038	1	03.00-04.50	T Th	Lawson	131	
Note: Screening Fee \$10						
452 FILM PLAN & SCRIPT					03.0 Cr ¹	
Prereq: 355 and/or consent of dept						
1039	1	07.00-09.50 pm	W	Comm	1116	Paine
Note: Screening Fee,\$10						
453 HIST,TEC-ANIMAT FLM					03.0 Cr ¹	
Prereq: 351 or consent of instructor						
1040	1	12.00	M W F	Lawson	231	Paine
454 GRAPH/ANI FILM PROD					03.0 Cr ¹	
Prereq: 355 and 453						
1041	1	10.00-11.30	T Th	Comm	1116	Cocking
Note: Screening Fee,\$10						
455 FILM PRODUCTION III					03.0 Cr ¹	
Prereq: 356, 452 and consent of department						
1042	1	06.30-09.50 pm	Th	Comm	1116	Zirpola
Note: Screening Fee,\$10						
463 HIST-EXPERIMENT FLM					03.0 Cr ¹	
Prereq: 351 for c&p majors						
1043	1	11.00	M W F	Comm	1116	Covell M
Note: Screening Fee,\$10						
464 SOUND NAR FLM-CONT					03.0 Cr ¹	
Prereq: 351 for c&p majors						
1044	1	06.30-09.50 pm	M	Lawson	131	Blumenberg
Note: Screening Fee,\$10						
491 INDIV STUDY-C OR P					01.0 to 09.0 Cr ¹	
Prereq: Consent of dept						
1045	700	To be arranged				
492 PRACTICUM					01.0 to 03.0 Cr	
Prereq: Consent of department						
1046	700	To be arranged				

¹Elective Pass/Fail ²Mandatory Pass/Fail

495	INTERNSHIP-C OR P	01.0 to 12.0 Cr
Prereq: Consent of dept		
1047	700 To be arranged	
497	PROJECTS IN C OR P	01.0 to 09.0 Cr ¹
Prereq: Consent of dept		
1048	700 To be arranged	
499	SENIOR THESIS	04.0 Cr ²
Prereq: Consent of dept		
1049	700 To be arranged	

* Note-for C&P 320,322,403,405,407,420,421,425-- Purchase of additional laboratory materials is required costing \$5.

Classical Studies (CLST)

100	GRK & LATN IN ENG	02.0 Cr ¹
1050	1 09.00 T Th Faner 2512 Speck C	
270	GREEK CIVILIZATION	03.0 Cr ¹
1051	1 02.00-03.15 T Th Faner 1005 Obrien	
496	INDEPENDENT STUDIES	02.0 to 04.0 Cr ¹
Prereq: Consent of instructor and CLST section head		
1052	700 To be arranged	

Clothing and Textiles (C&T)

104	BASIC TEXTILES	02.0 Cr
1053	1 01.00 T Th H Ec 203	
127	CLOTHING CONSTRUCT	02.0 to 03.0 Cr ¹
1054	1 12.00 T H Ec 310	
4 hours from the following times in Home Ec 310: 10-1 Monday, 6-9pm Tuesday, 1-4 Wednesday, or 9-12 Friday		
150	CLOTHING SELECTION	02.0 Cr ¹
1055	1 09.00 T Th H Ec 208	
227	PATTERN ADAPTATION	02.0 to 03.0 Cr ¹
Prereq: 127 or consent of chairperson		
1056	1 03.00-04.50 T H Ec 310	
	03.00-05.50 Th H Ec 310	
305	TEXTILES LAB	02.0 Cr
Prereq: 304 or equivalent or concurrent enrollment		
1057	1 10.00-12.50 W H Ec 301	
1058	2 01.00-03.50 T H Ec 301	
328	TAILORING	03.0 Cr
Prereq: 127 or equivalent		
1059	1 01.00-02.50 T H Ec 310	
	12.00-02.50 Th H Ec 310	
341C	FAS RET SEM-PERSONL	01.0 Cr
Prereq: 100 hours approved retailing experience		
1060	1 11.00 T H Ec 301	
343	APPAREL ACCESSORIES	03.0 Cr ¹
1061	1 02.00 M W H Ec 208	
	02.00 F H Ec 303	
1062	2 02.00 M W H Ec 208	
	04.00 F H Ec 303	
351	FASHION MOTIVATION	03.0 Cr
1063	1 01.00 M W F H Ec 208	
352	FAMILY CLOTHING	03.0 Cr
1064	1 11.00 M W F H Ec 208	
391	FIELD EXPERIENCE	01.0 to 06.0 Cr
Prereq: Consent of chairperson		
1065	1 To be arranged	
392	SPECIAL PROBLEMS	01.0 to 03.0 Cr
Prereq: Consent of chairperson		
1066	700 To be arranged	
405	TEXTILE TESTING	03.0 Cr
1067	1 01.00-02.50 M Th H Ec 301	
414	EXPERIM APPAREL DES	04.0 Cr
Prereq: 314 or consent of chairperson		
1068	1 02.00 T H Ec 303	
	03.00-05.50 T Th H Ec 303	
490	READINGS	01.0 to 04.0 Cr
Prereq: Senior standing or consent of chairperson		
1069	700 To be arranged	

580	RESEARCH METHODS	03.0 Cr
Prereq: Statistics or concurrent enrollment		
1070	1 06.00-08.30 pm M H Ec 211	
592	SPECIAL PROBLEMS	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1071	700 To be arranged	
597	PILOT STUDIES	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1072	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
1073	700 To be arranged	

Commercial Graphics (CG)

103	LITH & PLATEMKG LAB	02.0 to 08.0 Cr
Prereq: Concurrent enrollment in 127 or consent of instr Combs		
1074	1 To be arranged	
110	ART APPR CAVE-FUTUR	03.0 Cr
1075	1 11.00 M W F F1 107 Yack J	
120	ANAT,COLOR PERCEP I	04.0 Cr
Prereq: Concurrent enrollment in 122 and 124		
1076	1 08.00-10.50 M W F F1 121 Knutsen S	
CG 120 alternates days weekly with 122 & 124		
1077	2 01.00-03.50 M W F F1 121 Knutsen S	
CG 120 alternates days weekly with 122 & 124		
1078	3 01.00-03.50 M W F F1 121 Knutsen	
CG 120 alternates days weekly with 122 & 124		
122	TECH DRAW-GRAPHICS	04.0 Cr
Prereq: Concurrent enrollment in 120 and 124		
1079	1 08.00-11.50 T Th F1 121 Schindler R	
CG 122 alternates days weekly with 120 & 124		
1080	2 01.00-03.50 T Th F1 102 Schindler R	
CG 122 alternates days weekly with 120 & 124		
1081	3 01.00-03.50 T Th F1 102 Schindler R	
CG 122 alternates days weekly with 120 & 124		
124	GRAPH LAYOUT,TYPO I	04.0 Cr
Prereq: Concurrent enrollment in 120 and 122		
1082	1 08.00-10.50 M W F F1 121 Wolf	
CG 124 alternates days weekly with 120 & 122		
1083	2 01.00-03.50 M W F F1 121 Wolf	
CG 124 alternates days weekly with 120 & 122		
1084	3 01.00-03.50 M W F F1 102 Wolf	
CG 124 alternates days weekly with 120 & 122		
126	FUND-DRAWING & COMP	02.0 Cr ¹
1085	1 11.00 M W F F1 121 Knutsen	
1086	2 04.00 M W F F1 121 Wolf	
Above section restr to Fine Arts or consent of instr		
127	LITH & PLATEMKG THE	02.0 Cr
Prereq: Concurrent enrollment in 103		
1087	1 To be arranged Delmastro	
201	LITH PHOTO LAB	02.0 to 08.0 Cr
Prereq: Concurrent enrollment in 225 or consent of instr Combs		
1088	1 To be arranged	
202	OFFSET PRESS LAB	02.0 to 08.0 Cr
Prereq: Concurrent enrollment in 226 or consent of instr		
1089	1 To be arranged	
210	ADVERTISNG GRAPHICS	08.0 Cr
Prereq: 130, 132, and 134		
1090	1 08.00-10.50 M W F F1 113 Martin	
CG 210 alternates weekly with 224		
1091	2 01.00-03.50 M W F F1 113 Martin	
CG 210 alternates weekly with 224		
224	PUBLCAT GRAPHICS	08.0 Cr
Prereq: 130, 132, and 134; and concurrent enrollment in 210		
1092	1 08.00-11.50 M W F F1 113 Yack	
CG 224 alternates days weekly with 210		
1093	2 01.00-04.50 T Th F1 113	
CG 224 alternates days weekly with 210		
225	LITH PHOTO THEORY	02.0 Cr
Prereq: Concurrent enrollment in 201		
1094	1 To be arranged Delmastro	
226	OFFSET PRESS THEORY	02.0 Cr
Prereq: Concurrent enrollment in 202		
1095	1 To be arranged Delmastro	
240	SPECIAL STUDY	03.0 to 12.0 Cr
1096	1 To be arranged	

200	NATURE OF COMMUNITY	03.0 Cr ¹
1097	1 10.00 M W F Faner	2006 Denise P
202	COMM OF THE FUTURE	03.0 Cr ¹
1098	1 02.00 M W F Park	301 Hanson J
401	INTRO-COMM DEVELOP	03.0 Cr ¹
1099	1 09.35-10.50 T Th Faner	1032 Denise P
402	COMPARATIVE COM DEV	03.0 Cr ¹
1100	1 12.35-01.50 T Th H Ec	202 Bhattacharyya J
403	CONS-HUM SER DEL PR	03.0 Cr ¹
1101	1 11.00-12.15 T Th H Ec	201 Alliband T
1102	2 06.00-08.50 pm W H Ec	102 Wesley R
491	INDEPEND STUDY-CD	01.0 to 06.0 Cr ¹
Prereq: Cons of instr		
1103	700 To be arranged	
497B	SEM-PREP PROJ PROP	01.0 to 03.0 Cr ¹
1104	1 07.00 pm T Th Nkrs C	410 Thomas R
497E	SEM-RES PROB IN CD	01.0 to 03.0 Cr ¹
1105	1 11.00 M W F H Ec	102
500	RESEARCH SEM IN CD	03.0 Cr
1106	1 03.35-04.50 T Th Pull	41 Alliband T
501	SMALL GRP PROC-CD	04.0 Cr
1107	1 02.00-03.50 T Th H Ec	104 Thomas R
502	COMMUNITY & CHANGE	03.0 Cr
1108	1 03.35-04.50 T Th Faner	2008 Bhattacharyya J
503	PROB OF,APPROACH-CD	03.0 Cr ¹
Prereq: 401		
1109	1 02.00-03.15 T Th H Ec	102 Hanson J
589	PROFESSIONAL SEM-CD	02.0 Cr
1110	1 04.00-05.50 W H Ec	122
593	INDIV RESEARCH-CD	01.0 to 06.0 Cr
Prereq: 500 and consent of instructor		
1111	700 To be arranged	
595	INTERNSHIP	01.0 to 08.0 Cr
Prereq: 589 or concurrent enrollment & cons of field advisor		
1112	700 To be arranged	
599	THESIS RESEARCH	01.0 to 06.0 Cr
Prereq: 500 and approval of thesis committee chairman		
1113	700 To be arranged	

Computer Science (CS)

202	INTRO-COMPUTER PROG	03.0 Cr
Prereq: Completion of G S math requirement or equivalent		
1114	1 09.00 M W Park 124	
	08.00 T Th Nkrs A 278	
1115	2 09.00 M W Park 124	
	09.00 T Th Tech A 210	
1116	3 09.00 M W Park 124	
	10.00 T Th Tech A 208	
1117	4 09.00 M W Park 124	
	11.00 T Th Tech A 208	
1118	5 09.00 M W Park 124	
	12.00 T Th Faner 1028	
1119	6 09.00 M W Park 124	
	01.00 T Th Tech A 420	
1120	7 09.00 M W Park 124	
	02.00 T Th Nkrs A 278	
1121	8 09.00 M W Park 124	
	09.00 T Th Nkrs A 278	
212	INTRO BUSINESS COMP	03.0 Cr
1122	1 01.00 M W Park 124	
	08.00 T Th Tech A 210	
1123	2 01.00 M W Park 124	
	10.00 T Th Tech A 322	
1124	3 01.00 M W Park 124	
	11.00 T Th Faner 1226	
1125	4 01.00 M W Park 124	
	01.00 T Th Tech A 410	
302	ASSEMB LANG PROG	04.0 Cr
Prereq: 202		
1126	1 11.00 MTWThF Faner 1326	
304	INFORMAT STRUCTURES	03.0 Cr
Prereq: 302		
1127	1 01.00 M W F Faner 1136	

306	FUND OF COMPUT SYST	03.0 Cr
Prereq: 302		
1128	1 02.00 M W F Faner 1005	
311P	PL/1 AND ALGOL	02.0 Cr
Prereq: 202		
1129	1 08.00 T Th Faner 1226	
312	COBOL & BUSINESS DP	03.0 Cr
Prereq: 202		
1130	1 09.35-10.50 T Th Wham 203	
342	INTR-DISCRETE STRUC	03.0 Cr
Prereq: 202 & MATH 111 or consent of either dept		
1131	1 10.00 M W F Nkrs C 116	
Above section crosslisted with MATH 301		
361	NUMERICAL CALCULUS	03.0 Cr
Prereq: 202 and MATH 150		
1132	1 03.00 M W F Tech A 422	
Above section crosslisted with MATH 361		
401	COMPUTER ORGANIZ	03.0 Cr
Prereq: 306 and 342		
1133	1 11.00-12.15 T Th Faner 1032	
411	PROGRAMMING LANG	03.0 Cr
Prereq: 304 or concurrent enrollment		
1134	1 11.00 M W F Faner 2008	
430	FILE ORGANIZATION	03.0 Cr
Prereq: 304,306		
1135	1 02.00 M W F Nkrs A 278	
445	APPL BOOLEAN ALGBRA	03.0 Cr
Prereq: 342 or MATH 301, or both CS 202 & MATH 319		
1136	1 12.00 M W F Nkrs C 116	
Above section crosslisted with MATH 445		
449	COMBIN & GRAPH THEO	03.0 Cr
Prereq: 342		
1137	1 09.00 M W F Tech A 210	
Above section crosslisted with MATH 449		
464A	NUMERICAL ANALYSIS	03.0 Cr
Prereq: 202, MATH 250 & MATH 221		
1138	1 03.00 M W F Faner 1026	
Above section crosslisted with MATH 475a		
470	COMPUTER SIMUL TECH	03.0 Cr
Prereq: 202 & MATH 150		
1139	1 12.35-01.50 T Th Faner 1230	
490	READINGS	01.0 to 06.0 Cr
Prereq: Consent of instructor and dept		
1140	700 To be arranged	
491	SPECIAL TOPICS	01.0 to 04.0 Cr
Prereq: Consent of instructor		
1141	1 04.00 M W F ,Faner 3514	
492	SPECIAL PROBLEMS	01.0 to 06.0 Cr
Prereq: Consent of department		
1142	700 To be arranged	
493	SEMINAR	01.0 to 04.0 Cr
Prereq: Consent of instructor		
1143	1 04.00 T Th Faner 2373	
501	ADV COMPUTER ORG	03.0 Cr
Prereq: 401,445		
1144	1 08.00 M W F Faner 2373	
514	ADV SYSTEMS PROGRAM	03.0 Cr
Prereq: 414		
1145	1 01.00 M W F Faner 2373	
536	ARTIF INT,HEUR PROG	03.0 Cr
Prereq: 304 or consent of instructor		
1146	1 02.00-03.15 T Th Faner 2406	
555	THEOR-COMPUTABILITY	03.0 Cr
Prereq: 451		
1147	1 12.00 M W F Tech A 308	
Above section crosslisted with MATH 529		
590	READINGS	01.0 to 09.0 Cr
Prereq: Consent of instructor & dept		
1148	700 To be arranged	

592 SPECIAL PROBLEMS					01.0 to 03.0 Cr
Prereq: Consent of department					
1149	700	To be arranged			
593 SEMINAR					01.0 to 04.0 Cr
Prereq: Consent of instructor					
1150	1 04.00	T Th	Faner	2406	
599 THESIS					01.0 to 05.0 Cr
Prereq: Consent of department					
1151	700	To be arranged			

Construction Technology (CST)

101A SURVEYING					07.0 Cr
1152	1 01.00-03.50	M W F	F1	102 Staley	
102A DRAFTING					04.0 Cr
1153	1 08.00-09.50	T Th F	F1	102 Lampman	
1154	2 10.30-11.50	T Th F	F1	102 Lampman	
1155	3 01.00-03.50	T Th	L4	106 Lampman	
103A CONSTRUCT MATERIALS					04.0 Cr
1156	1 09.00-10.50	M	L4	107 Branson	
	09.00-11.50	W	L4	107 Branson	
1157	2 01.00-02.50	M	L4	107 Lampman	
	01.00-03.50	W	L4	107 Lampman	
103B CONSTRUCT MATERIALS					04.0 Cr
1158	1 08.00	M W	L4	107 Staley	
	08.00-10.50	F	L4	107	
1159	2 10.00-11.50	T	L4	107	
	09.00-11.50	Th	L4	107	
110 BASIC CONSTRUCT I					07.0 Cr
1160	1 10.00	T Th	L4	106 Osborn	
	08.00-10.50	M W F	L4	106	
1161	2 12.00	T Th	L4	106 Osborn	
	02.00-04.50	M W F	L4	106	
125A STATIC & STRNTH MAT					03.0 Cr
1162	1	To be arranged			
125B STATIC & STRNTH MAT					03.0 Cr
1163	1	To be arranged			
210 ADVANCED CONSTR I					07.0 Cr
Prereq: 111 or consent of instructor					
1164	1 01.00	M W F	L4	106 Branson	
	01.00-03.50	T Th	L4	107 Branson	

Corrections and Law Enforcement (CLE)

103 INTRO-CRIMINAL JUST					03.0 Cr
1165	1 09.00	M W F	H Ec	201	
1166	2 06.00-09.00 pm	M	H Ec	118	
1167	3 06.00-09.00 pm	M	Pull	39	
104 TREAT METH-LINE PER					03.0 Cr
1168	1 02.00-03.15	T Th	Pull	35 Hendricks	
1169	2 06.00-09.00 pm	T	Pull	37 Hendricks	
105 CRIMINAL BEHAVIOR					03.0 Cr
1170	1 12.35-01.50	T Th	H Ec	122	
1171	2 02.00-03.15	T Th	Faner	1230	
1172	3 06.00-09.00 pm	W	H Ec	118	
115 INTERPERS REL-C JUS					03.0 Cr
1173	1 09.35-10.50	T Th	Wham	328 Hendricks	
1174	2 11.00-12.15	T Th	Faner	1222 Hendricks J	
1175	3 06.00-09.00 pm	Th	Wham	303 Hendricks	
209 CRIMINAL LAW I					03.0 Cr
1176	1 06.00-09.00 pm	Th	Wham	302 Grace W	
215 INTERNSHIP-CRIM JUS					09.0 Cr
1177	1	To be arranged			
			Dakin J		
221 POLICE ADMIN					04.0 Cr
Prereq: 103					
1178	1 11.00-12.50	T Th	Ag	148	
1179	2 02.00-03.50	T Th	Ag	170	
1180	3 06.30-10.00 pm	T	H Ec	106	

Curriculum, Instruction, and Media (CIM)

209 PHIL OF CREATIVITY					02.0 Cr
1181	1 01.00-02.50	T	Wham	210	

213 UNDRSTD EL SCH CHLD					02.0 Cr
1182	1 11.00	T Th	Wham	210	
1183	2 01.00	M W	Wham	210	
258 WORK EXPERIENCE					01.0 to 04.0 Cr
Prereq: 12hrs B in CIM maj & cons CIM Ugrad Affairs Comm					
1184	1	To be arranged			
312 TCH READING-EL SCHL					03.0 Cr
1185	1 08.00-09.15	T Th	Wham	208 Steinruck	
1186	2 11.00	M W F	Wham	208 Steinruck	
1187	3 12.35-01.50	T Th	Wham	208 Steinruck	
1188	4 03.00	M W F	Wham	208 Steinruck	
1189	5 04.00-05.15	M W	Wham	208 Steinruck	
1190	6 06.30-09.00 pm	Th	Wham	208 Steinruck	
315 TCH MATH-ELEM SCHL					03.0 Cr
1191	1 08.00	MTWTh	Wham	202 Dixon	
1192	2 10.00	MTWTh	Wham	202 Dixon	
1193	3 12.00	MTWTh	Wham	202 Dixon	
1194	4 02.00	MTWTh	Wham	202 Dixon	
1195	5 05.45-09.00	Th	Wham	202 Dixon	
316 EARLY CHLD METH,CUR					02.0 Cr
Prereq: Concurrent enrollment in Education 302					
1196	1 01.00-02.50	Th	Wham	210 Grant	
317 EARLY CHLD CURR I					04.0 Cr
Prereq: 209 and Child & Family 240					
1197	1 02.00	M W F	Wham	210 Morpurgo	
To be arranged					
Additional meeting times					
318 EARLY CHLD CURR II					05.0 Cr
Prereq: 317					
1198	1 05.00-07.30	W	Wham	210 Morpurgo	
To be arranged					
Additional meeting times					
361 TCH READING IN H.S.					03.0 Cr
1199	1 09.00	M W F	Wham	208 Jackson J	
1200	2 11.00-12.15	T Th	Wham	208 Jackson J	
1201	3 03.35-04.50	T Th	Wham	208 Jackson J	
390A READINGS-CURRICULUM					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1202	700	To be arranged			
390B READINGS-SUPERVIS					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1203	700	To be arranged			
390C READINGS-LANG ARTS					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1204	700	To be arranged			
390D READINGS-SCIENCE					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1205	700	To be arranged			
390E READINGS-MATH					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1206	700	To be arranged			
390F READINGS-READING					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1207	700	To be arranged			
390G READINGS-SOCIAL STU					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1208	700	To be arranged			
390H READINGS-EARLY CHLD					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1209	700	To be arranged			
390I READINGS-ELEM EDUC					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1210	700	To be arranged			
390J READINGS-MIDDLE SCH					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1211	700	To be arranged			
390K READINGS-SECONDARY					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1212	700	To be arranged			
390L READINGS-DISADV CHL					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1213	700	To be arranged			
390M READINGS-INSTRUCT					01.0 to 03.0 Cr
Prereq: Consent of instructor					
1214	700	To be arranged			

390N	READINGS-ED MEDIA	01.0 to 03.0 Cr
Prereq: Consent of instructor		
1215	700 To be arranged	
393A	RES-CURRICULUM	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1216	700 To be arranged	
393B	IND RES-SUPERVISION	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1217	700 To be arranged	
393C	INDIV RES-LANG ARTS	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1218	700 To be arranged	
393D	INDIVID RES-SCIENCE	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1219	700 To be arranged	
393E	INDIVIDUAL RES-MATH	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1220	700 To be arranged	
393F	INDIV RES-READING	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1221	700 To be arranged	
393G	IND RES-SOC STUDIES	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1222	700 To be arranged	
393H	IND RES-EARLY CHILD	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1223	700 To be arranged	
393I	IND RES-ELEM EDUC	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1224	700 To be arranged	
393J	IND RES-MID,JR H.S.	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1225	700 To be arranged	
393K	IND RES-SECOND ED	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1226	700 To be arranged	
393L	IND RES-DISADV CHLD	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1227	700 To be arranged	
393M	IND RES-INSTRUCTION	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1228	700 To be arranged	
393N	IND RES-EDUC MEDIA	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1229	700 To be arranged	
393O	IND RES-ENVIRON ED	01.0 to 06.0 Cr
Prereq: Consent of instructor		
1230	700 To be arranged	
400	SIMULATION & GAMING	02.0 Cr
1231	1 07.35-09.15 pm T Pull	310 Jurgemeyer
402	DISADV,CULT DIF STU	03.0 Cr
1232	1 10.00 M W F Wham	210 Grant
407E	CORR TECHNIQ-MATH	03.0 Cr
Prereq: Sp meth crse in fld select by stu and/or cons instr		
1233	1 06.30-09.00 pm M Wham	202 Paige
407F	CORR TECH-READING	03.0 Cr
Prereq: Sp meth crse in fld select by stu and/or cons instr		
1234	1 01.00 M W F Wham	208 Stallard
1235	2 06.30-09.00 pm W Wham	208
409	CREATIVE TEACHING	03.0 Cr
Prereq: EDUC 302		
1236	1 11.00 M W F Wham	210 Lindberg
410	CREAT WRIT-PUB SCHL	02.0 Cr
1237	1 06.30-09.00 pm T Wham	206 Lindberg
418	HIST,PHIL EARLY CHL	02.0 Cr
Prereq: 316, 318, senior or graduate standing		
1238	1 02.00-03.50 M Pull	310
419	PARENT INVOL IN ED	03.0 Cr
Prereq: 317, student teaching or consent of instructor		
1239	1 06.30-09.00 pm M Wham	210

423	TCH EL ENG LANG ART	03.0 Cr
1240	1 08.00 M W F Wham	208 Shepherd
1241	2 09.35-10.50 T Th Wham	208 Shepherd
1242	3 02.00 M W F Wham	208 Shepherd
424	TCH EL SCH SOC STU	03.0 Cr
1243	1 11.00 M W F Wham	206 Lamb
1244	2 11.00-12.15 T Th Wham	206 Lamb
1245	3 02.00 M W F Wham	206 Lamb
426	INTRO TCH ELEM SCI	03.0 Cr
1246	1 09.00 W Th Pull	304 Hungerford
	10.00 W Pull	304
1247	2 10.00 MT Pull	304 Hungerford
	11.00 T Pull	304
1248	3 01.00 MT Pull	304 Hungerford
	02.00 T Pull	304
427	SCI PROC,CON GR N-8	04.0 Cr
1249	1 06.00-09.30 pm M Pull	304 Tomera
435	LIT FOR CHILDREN	03.0 Cr
1250	1 08.00 M W F Wham	210 Matthias
1251	2 09.35-10.50 T Th Wham	210 Matthias
1252	3 03.00 M W F Wham	210 Matthias
1253	4 03.35-04.50 T Th Wham	210 Matthias
1254	860 To be arranged Kaskas	Quisenberry J
436	LIBRARY RES METH	02.0 Cr
1255	1 03.00 W Pull	310 Dale
To be arranged		
Additional meeting times		
437	ED MEDIA-BUS,INDUST	03.0 Cr
1256	1 09.35-10.50 T Th Pull	318 Spigle
438	INTRO-TECH SERVICES	03.0 Cr
1257	1 03.35-04.50 T Th Pull	310 Dale
439	BASIC REF SOURCES	03.0 Cr
1258	1 09.00 M W F Pull	310 Cox
442	ADMN SCH MEDIA PROG	04.0 Cr
1259	1 10.00 M W F Pull	318 Cox
To be arranged		
445	MEDIA-YOUNG PEOPLE	03.0 Cr
1260	1 06.30-09.00 pm W Pull	318 Cox
450	PHOTOG FOR TEACHERS	03.0 Cr
1261	1 11.00-12.15 T Th Pull	310 Butts
453	LOCAL PROD-ED MEDIA	03.0 Cr
1262	1 12.00-02.50 M Pull	307 Jurgemeyer
	12.00-01.50 W Pull	307
458	CLASSRM TCH WITH TV	03.0 Cr
1263	1 06.30-09.00 pm M Wham	112 Klasek
462	MID & JR H.S. PROG	03.0 Cr
1264	1 06.30-09.00 pm M Wham	319 Aikman
468	SCI METH-JR,SR H.S.	03.0 Cr
1265	1 11.00 M W F Pull	304 Rubba
469	TCH SOC STU-SEC SCH	02.0 Cr
1266	1 05.45-07.25 T Wham	319 Solliday
496	FIELD STUDY ABROAD	02.0 to 04.0 Cr
1267	1 To be arranged	Paige
498E	WORKSHOPS-MATH	03.0 Cr
1268	860 To be arranged Kaskas	Thiessen D
500	RESEARCH METH IN ED	03.0 Cr
1269	1 06.30-09.00 pm W Pull	304 Rubba
1270	2 06.30-09.00 pm W Pull	304 Rubba
502	ED DISADV-RES & TCH	03.0 Cr
1271	1 06.30-09.00 pm Th Wham	210 Grant
509	FOUND OF ENVIRON ED	03.0 Cr
1272	1 06.30-09.00 pm T Pull	304 Hungerford
511	SEM PSYC EL SCH SUB	03.0 Cr
1273	1 06.30-09.00 pm Th Pull	310 Sloan
512	READING ELEM SCHL	03.0 Cr
1274	1 06.30-09.00 pm M Wham	208 Steinruck
518	EARLY CHILDHOOD ED	03.0 Cr
Prereq: Consent of the instructor		
1275	1 06.30-09.00 pm T Wham	210 Matthias

¹Elective Pass/Fail ²Mandatory Pass/Fail

521A DIAG,CORR-READ DIS					04.0 Cr	590L READ-DISADV AN CHILD					01.0 to 03.0 Cr
Prereq: 512 or 561 and consent of instructor						Prereq: Consent of instructor					
1276	1	06.00-09.30 pm	T	Wham	112 Hill	1302	700	To be arranged			
524 TCH SOC STU-EL SCHL					03.0 Cr	590M READINGS-INSTRUCT					01.0 to 03.0 Cr
1277	1	06.30-09.00 pm	W	Wham	206 Sloan	Prereq: Consent of instructor					
531 EL SCHL CURRICULUM					03.0 Cr	1304	700	To be arranged			
1278	1	06.30-09.00 pm	M	Wham	206 Lindberg	590N READINGS-EDUC MEDIA					01.0 to 03.0 Cr
540 MASS COMMUNIC IN ED					02.0 Cr	Prereq: Consent of instructor					
1279	1	05.45-07.25	T	Pull	310 Spigle	1305	700	To be arranged			
544 ADM-COMM COL MEDIA					03.0 Cr	590O READINGS-ENVIR EDUC					01.0 to 03.0 Cr
1280	1	03.00-05.30	M	Pull	318 Dale	Prereq: Consent of instructor					
548 PROD,UTIL OF MEDIA					05.0 Cr	1306	700	To be arranged			
1281	1	12.00-02.50	M	Pull	307 Jurgemeyer	593A INDIV RES-CURRIC					01.0 to 03.0 Cr
		12.00-01.50	W	Pull	307	Prereq: Consent of instructor					
		11.00-01.50	Th	Pull	307	1307	700	To be arranged			
550 HISTORY OF MEDIA					03.0 Cr	593B INDIV RES-SUPERVIS					01.0 to 03.0 Cr
1282	1	03.00-05.30	W	Pull	318 Butts	Prereq: Consent of instructor					
551 RES & DEV ED MEDIA					04.0 Cr	1308	700	To be arranged			
1283	1	06.00-09.30 pm	W	Pull	316 Spigle	593C INDIV RES-LANG ARTS					01.0 to 03.0 Cr
554 INTEGRAT ED MEDIA					03.0 Cr	Prereq: Consent of instructor					
1284	1	06.30-09.00 pm	Th	Pull	318 Klasek	1309	700	To be arranged			
555 VISUAL LEARNING					03.0 Cr	593D INDIV RES-SCIENCE					01.0 to 03.0 Cr
1285	1	05.00-07.30	T	Pull	318 Butts	Prereq: Consent of instructor					
561 READ IN SECOND SCHL					03.0 Cr	1310	700	To be arranged			
1286	1	06.30-09.00 pm	Th	Wham	319 Jackson J	593E INDIV RES-MATH					01.0 to 03.0 Cr
571 SEC SCHL CURRICULUM					03.0 Cr	Prereq: Consent of instructor					
1287	860	To be arranged		Kaskas	Aikman A	1311	700	To be arranged			
580 DEV-SUBJ AREAS-SEC					03.0 Cr	593F INDIV RES-READING					01.0 to 03.0 Cr
1288	1	04.30-07.00	T	Pull	316 Jackson M	Prereq: Consent of instructor					
585A SEMINARS-CURRICULUM					03.0 Cr	1312	700	To be arranged			
Prereq: Consent of instructor						593G INDIV RES-SOC STU					01.0 to 03.0 Cr
1289	1	06.30-09.00 pm	W	Wham	319 Long	Prereq: Consent of instructor					
585M SEMINARS-INSTRUCT					03.0 Cr	1313	700	To be arranged			
Prereq: Consent of instructor						593H RES-EARLY CHLDHED ED					01.0 to 03.0 Cr
1290	1	06.30-09.00 pm	M	Pull	316 Dixon	Prereq: Consent of instructor					
587 CURRIC IMPL & EVAL					03.0 Cr	1314	700	To be arranged			
1291	1	12.35-01.50	T Th	Pull	310 Sloan	593I INDIV RES-ELEM EDUC					01.0 to 03.0 Cr
590A READINGS-CURRICULUM					01.0 to 03.0 Cr	Prereq: Consent of instructor					
1292	700	To be arranged				1315	700	To be arranged			
590B READINGS-SUPERVIS					01.0 to 03.0 Cr	593J INDIV RES-MID SCH					01.0 to 03.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1293	700	To be arranged				1316	700	To be arranged			
590C READINGS-LANG ARTS					01.0 to 03.0 Cr	593K IND RES-SECOND EDUC					01.0 to 03.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1294	700	To be arranged				1317	700	To be arranged			
590D READINGS-SCIENCE					01.0 to 03.0 Cr	593L IND RES-DISADV CHLD					01.0 to 03.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1295	700	To be arranged				1318	700	To be arranged			
590E READINGS-MATHEMATIC					01.0 to 03.0 Cr	593M IND RES-INSTRUCTION					01.0 to 03.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1296	700	To be arranged				1319	700	To be arranged			
590F READINGS-READING					01.0 to 03.0 Cr	593N IND RES-EDUC MEDIA					01.0 to 03.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1297	700	To be arranged				1320	700	To be arranged			
590G READINGS-SOCIAL STU					01.0 to 03.0 Cr	593O RES-ENVIRONMENTL ED					01.0 to 03.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1298	700	To be arranged				1321	700	To be arranged			
590H READING-EARLY CHILD					01.0 to 03.0 Cr	594A PRACTICUM-CURRIC					03.0 to 09.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1299	700	To be arranged				1322	700	To be arranged			
590I READINGS-ELEM EDUC					01.0 to 03.0 Cr	594B PRACT-SUPR/INST IMP					03.0 to 09.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1300	700	To be arranged				1323	700	To be arranged			
590J READINGS-MIDDLE SCH					01.0 to 03.0 Cr	594C PRACTICUM-LANG ARTS					03.0 to 09.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1301	700	To be arranged				1324	700	To be arranged			
590K READINGS-SEC EDUC					01.0 to 03.0 Cr	594D PRACTICUM-SCIENCE					03.0 to 09.0 Cr
Prereq: Consent of instructor						Prereq: Consent of instructor					
1302	700	To be arranged				1325	700	To be arranged			

594E PRACTICUM-MATH	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1326 700 To be arranged	
594F PRACTICUM-READING	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1327 700 To be arranged	
594G PRACTICUM-SOC STU	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1328 700 To be arranged	
594H PRACT-EARLY CHLD ED	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1329 700 To be arranged	
594I PRACTICUM-ELEM ED	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1330 700 To be arranged	
594J PRACT-MIDDLE SCHL	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1331 700 To be arranged	
594K PRACTICUM-SECOND ED	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1332 700 To be arranged	
594L PRACT-DISADV CHILD	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1333 700 To be arranged	
594M PRACT-INSTRUCTION	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1334 700 To be arranged	
594N PRACTICUM-ED MEDIA	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1335 700 To be arranged	
594O PRACT-ENVIRON EDUC	03.0 to 09.0 Cr
Prereq: Consent of instructor	
1336 700 To be arranged	
595A INTERNSHIP-CURRIC	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1337 700 To be arranged	
595B INTERN-SUP/INST IMP	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1338 700 To be arranged	
595C INTERNSHIP-LANG ART	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1339 700 To be arranged	
595D INTERNSHIP-SCIENCE	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1340 700 To be arranged	
595E INTERNSHIP-MATH	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1341 700 To be arranged	
595F INTERNSHIP-READING	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1342 700 To be arranged	
595G INTERNSHIP-SOC STU	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1343 700 To be arranged	
595H INTERN-EARLY CHD ED	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1344 700 To be arranged	
595I INTERNSHIP-ELEM ED	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1345 700 To be arranged	
595J INTERN-MIDDLE SCHL	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1346 700 To be arranged	
595K INTERN-SECONDARY ED	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1347 700 To be arranged	
595L INTERN-DISADV CHILD	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1348 700 To be arranged	

595M INTERNSHIP-INSTRUCT	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1349 700 To be arranged	
595N INTERNSHIP-ED MEDIA	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1350 700 To be arranged	
595O INTERN-ENVIRON EDUC	02.0 to 08.0 Cr
Prereq: Consent of instructor	
1351 700 To be arranged	
596 INDEPEND INVESTIGAT	03.0 to 06.0 Cr
Prereq: Consent of instructor	
1352 700 To be arranged	
599 THESIS	02.0 to 06.0 Cr
1353 700 To be arranged	
600 DISSERTATION	01.0 to 16.0 Cr
1354 700 To be arranged	

Dental Hygiene (DH)

136 CRANIAL & ORAL ANAT	04.0 Cr
1355 1 12.00 M W F H Ec 208	
02.00-04.50 F F1 107	
1356 2 12.00 M W F H Ec 208	
02.00-04.50 Th F1 107	
137A PRE-CLINICAL D H	05.0 Cr
1357 1 12.00 T Th H Ec 206	
02.00-04.50 T Th F1 112	
1358 2 12.00 T Th H Ec 206	
08.00-10.50 T Th F1 112	
138 PATHOLOGY	03.0 Cr
Prereq: 218 a,b	
1359 1 08.00-09.50 T Dorm I 101	
08.00 Th Dorm I 101	
201 DEN MAT & ASSIT TEC	04.0 Cr
Prereq: Inorganic chemistry	
1360 1 09.00-10.50 Th F1 107	
10.00 T F1 107	
02.00-04.50 M F3 144	
1361 2 09.00-10.50 Th F1 107	
10.00 T F1 107	
02.00-04.50 Th F3 144	
1362 3 09.00-10.50 Th F1 107	
10.00 T F1 107	
08.00-10.50 M F3 144	
210A CLIN DH & RADIOLOGY	06.0 Cr
1363 1 08.00-11.50 M W F F1 109	
Also meets in F3 132	
1364 2 01.00-04.50 M W F F1 109	
Also meets in F3 132	
215 ETH,JURISPR,OFC MGT	01.0 Cr
1365 1 03.00 M Park 309	
220A COMMUNITY DENTISTRY	03.0 Cr
1366 1 11.00 T Th F1 107	
02.00-03.50 F F1 110	
1367 2 11.00 T Th F1 107	
09.00-10.50 F F1 110	
240 DENT PHARM & ANESTH	02.0 Cr
Prereq: Chemistry,physiology	
1368 1 12.00 M F Dorm I 101	
241 PERIODONTOLOGY	02.0 Cr
1369 1 01.00 T F1 107 Edwards M	
12.00 W F1 107	

Dental Laboratory Technology (DT)

102 TOOTH ANAT-LAB&THEO	04.5 Cr
1370 301 08.00 M W F F1 110 Tennyson	
09.00-11.50 M W F F3 127 Tennyson	
08.00-11.50 T Th F3 127 Tennyson	
Above section meets 8/22-9/26	
1371 302 01.00 M W F F1 112 Ijams	
02.00-04.50 M W F F3 127 Ijams	
01.00-04.50 T Th F3 127 Ijams	
Above section meets 8/22-9/26	

103A DENTURES THEORY&LAB						04.5 Cr
Prereq: 105						
1372	301	08.00	M W F	F1	112 Bykowski	
		09.00-11.50	M W F	F3	127 Bykowski	
		08.00-11.50	T Th	F3	127 Bykowski	
Above section meets 10/31-12/9						
1373	302	01.00	M W F	F1	112 Westphal	
		02.00-04.50	M W F	F3	127 Westphal	
		01.00-04.50	T Th	F3	127 Westphal	
Above section meets 10/31-12/9						
105 DENT OCCLUS THEO-LAB						04.5 Cr
Prereq: 102						
1374	301	08.00	M W F	F1	110 Ijams	
		09.00-11.50	M W F	F3	127 Ijams	
		08.00-11.50	T Th	F3	127 Ijams	
Above section meets 9/27-10/28						
1375	302	01.00	M W F	F1	110 Westphal	
		02.00-04.50	M W F	F3	127 Westphal	
		01.00-04.50	T Th	F3	127 Westphal	
Above section meets 9/27-10/28						
113B SCI-DENTAL MATERIAL						02.0 Cr
1376	101	11.00	M W F	F1	110 Laake	
Above section meets 9/30-10/9						
1377	102	01.00	M W F	F1	110 Laake	
Above section meets 9/30-10/9						
143 ORIENTATION TO D T						01.0 Cr
1378	201	11.00	T Th	F1	110 Laake	
Above section meets 9/29-11/17						
1379	202	02.00	T Th	F1	110 Laake	
Above section meets 9/29-11/17						
202 PROFESSIONAL ETHICS						01.0 Cr
1380	1	12.00	T	F1	110 Laake	
1381	2	12.00	Th	F1	110 Laake	
203 ORTHO & PEDOTH-LAB						04.5 Cr
Prereq: 104b						
1382	301	08.00	M W F	F1	112 Bykowski	
		09.00-11.50	M W F	F3	128 Bykowski	
		08.00-11.50	T Th	F3	128 Bykowski	
Above section meets 8/22-9/26						
1383	302	01.00	M W F	F1	110 Westphal	
		02.00-04.50	M W F	F3	128 Westphal	
		01.00-04.50	T Th	F3	128 Westphal	
Above section meets 8/22-9/26						
204A BEG CROWN & BRIDGE						04.5 Cr
Prereq: 203						
1384	301	08.00	M W F	F1	112 Tennyson	
		09.00-11.50	M W F	F3	128 Tennyson	
		08.00-11.50	T Th	F3	128 Tennyson	
Above section meets 9/27-10/31						
1385	302	01.00	M W F	F1	112 Bykowski	
		02.00-04.50	M W F	F3	128 Bykowski	
		01.00-04.50	T Th	F3	128 Bykowski	
Above section meets 9/27-10/31						
204B ADV CROWN & BRIDGE						04.5 Cr
Prereq: 204a						
1386	301	08.00	M W F	F1	110 Tennyson	
		09.00-11.50	M W F	F3	128 Tennyson	
		08.00-11.50	T Th	F3	128 Tennyson	
Above section meets 11/1-12/9						
1387	302	01.00	M W F	F1	110 Ijams	
		02.00-04.50	M W F	F3	128 Ijams	
		01.00-04.50	T Th	F3	128 Ijams	
Above section meets 11/1-12/9						
Design (DES)						
100 STRUCTURE & FORM						02.0 Cr
1391	1	12.00	T Th	Faner	1326 Schoen A	
102 DESIGN FUNDAMENTALS						05.0 Cr
1392	1	05.00-07.00	W	Lawson	171 Busch & Pratt	
		10.00-11.50	M	F	0847 100	
1393	2	05.00-07.00	W	Lawson	171 Busch & Pratt	
		10.00-11.50	M	F	0847 100	
1394	3	05.00-07.00	W	Lawson	171 Busch & Pratt	
		01.00-02.50	M	F	0847 100	

1395	4	05.00-07.00	W	Lawson	171 Busch & Pratt	
		01.00-02.50	M	F	0847	100
103 THE WAY THINGS WORK						03.0 Cr
1396	1	04.00	M W F	Lawson	121	
150 FOUN IN 2-D,3-D DES						04.0 Cr
Prereq: 100 and 102;or consent of chairman						
1397	1	10.00-11.50	T Th	0862	101 Newman G	
152 INTR SYST APPROACH						03.0 Cr
1398	1	12.35-01.50	T Th	Ag	216 Ellner J	
200 BASIC REPRES FUNDAM						03.0 Cr
Prereq: 150 and 152;or consent of chairman						
1399	1	09.00-10.20	M W F	0857	101 Kachel & Newman	
201 SURVEY OF DESIGN						02.0 Cr
Prereq: Consent of chairman						
1400	1	07.00-10.00 pm	T	0847	100 Roan H	
202 BASIC MATRLS & PROC						02.0 Cr
1401	1	09.35-10.30	T Th	0848	101 Archer R	
300 GRAPHIC REPRODUCT						03.0 Cr
Prereq: 200,201,202,250,252,254; or consent of chairman						
1402	1	10.00-11.30	M W F	0861	101 Kula E	
301 STRUCTURES FOR DES						03.0 Cr
Prereq: 200,201,202,250 & 254 or consent of chairman						
1403	1	08.00	M W F	0849	100 Schoen A	
302 APPL SYST THEO-DES						03.0 Cr
Prereq: 152,200,201,202,250,252,254; or consent of chairman						
1404	1	09.35-10.50	T Th	0863	101 Ellner J	
303 METAPLANNING						03.0 Cr
Prereq: 200,201,202,250,252 and 254, or/and cons of chairmn						
1405	1	09.00	M W F	0863	101 Perk	
312 PRODUCT DES ANALY						02.0 Cr
Prereq: Cons of chairman, declared specialty in product des						
1406	1	02.00-03.15	T Th	0847	100 Busch L	
313 MATERIALS & METH I						02.0 Cr
Prereq: 202, declared specialization in prod design,or cons						
1407	1	11.30-12.30	T Th	0848	101 Archer R	
322 VISUAL COMMUNIC I						03.0 Cr
Prereq: Cons of chairman or declared spec in visual communic						
1408	1	01.00-02.50	M W F	0857	101 Kula E	
332 SURVEY OF URBAN DES						02.0 Cr
1409	1	03.00	T Th	0863	101 Kachel T	
333 URBAN DESIGN I						04.0 Cr
Prereq: 332,or conc enrl,or consent,& declared spec-urban d						
1410	1	01.00-02.50	M W F	0863	101 Kachel T	
342 INTRO COMPUTER GRAP						03.0 Cr
Prereq: Cons of chairman & declared spec-computer aided des						
1411	1	12.35-01.50	T Th	0852	101 Schoen A	
352 DESIGN METHODOLOGY						03.0 Cr
Prereq: 200,201,202,250,252 and 254 or consent of chairman						
1412	1	08.00-09.30	T Th	0847	100 Perk H	
354 UNDERSTAND FULLER						02.0 Cr
1413	1	07.00-09.00 pm	T Th	0847	100 Perk H	
395 INDEPENDENT STUDY						02.0 to 06.0 Cr
Prereq: 200,201,202,250,252 & 254, or consent of chairman						
1414	700	To be arranged				
400 SELF PRESENTATION						03.0 Cr
Prereq: 200,201,202,250,252,254 plus 9hrs 300 lev or consent						
1415	1	08.00	M W F	0862	101 Newman G	
401 PROB SOLV-APPL DES						03.0 Cr
Prereq: GSC 205, DES 200,201,202,250,252 & 254 or consent						
1416	1	09.00-10.50	W F	0847	101 Grosowsky H	
403 ADV SYSTEMS THEORY						04.0 Cr
Prereq: 302 and 9 hours of 300 level core courses						
1417	1	06.30-09.30 pm	M	0863	102 Ellner J	
405 ENVIRONMNT GRAPHICS						03.0 Cr
Prereq: Sr stand in Design & portfolio or cons of chairman						
1418	1	10.00-12.00	T Th	0862	101 Kachel T	
412 PRACT-PRODUCT DES						04.0 Cr
Prereq: 362; declared specialization in product design						
1419	1	01.00-02.50	M W F	0861	101 Archer R	

413 PROF PRACT-PROD DES					02.0 Cr
Prereq: Declared specialization in product design					
1420	1	12.00-01.50	Th	0861	101 Pratt D
422 VISUAL COMM III					03.0 Cr
Prereq: 372 & 373, & declared specialization in visual comm					
1421	1	03.00-04.50	M W F	0857	101 Roan H
423 MULTI-MEDIA EXPLOR					03.0 Cr
Prereq: 372 & 373, declared specialization in visual comm					
1422	1	02.00-04.30	T Th	0861	102 Roan H
432 LANDSCAPE ARCHITECT					02.0 Cr
Prereq: 311 or consent of instructor					
1423	1	01.00-02.30	T Th	0862	101
433 URBAN DESIGN III					04.0 Cr
Prereq: 381,432 or chairman cons,& declar spec in urban des					
1424	1	03.00-04.50	M W F	0862	101 Kachel T
442 PRIN COMPUTER GRAPH					04.0 Cr
Prereq: CS 202 or equivalent					
1425	1	02.00-04.00	T Th	0852	101 Allen A
443 APP SCI,TECH TO DES					02.0 Cr
Prereq: Nine hours of 300 level core courses					
1426	1	01.00	W F	0861	102 Schoen A
495 SEMINAR IN DESIGN					03.0 to 09.0 Cr
Prereq: Cons of chairman,9hrs 300 level core crs, sr stand					
1427	1	To be arranged			
1428	700	To be arranged			
499 SR HONORS RESEARCH					03.0 to 09.0 Cr
Prereq: Consent of instructor					
1429	700	To be arranged			

Economics (ECON)

214 INTRO TO MACROECON						03.0 Cr ¹	
1435	1	10.00	M W F	Faner	1005		
1436	2	12.00	M W F	Lawson	201		
1437	3	12.35-01.50	T Th	Lawson	101		
1438	4	01.00	M W F	Lawson	101		
1439	5	02.00	M W F	Lawson	171	Tracy R	
1440	6	02.00-03.15	T Th	Park	124		
1441	7	06.00-07.25 pm	M W	Pull	118		
215 INTRO TO MICROECON						03.0 Cr ¹	
1442	1	09.00	M W F	Faner	1326		
1443	2	09.35-10.50	T Th	Faner	1006		
1444	3	11.00	M W F	Wham	308	Lyon V	
1445	4	12.35-01.50	T Th	Lawson	151	Ellis R	
1446	5	06.00-07.25 pm	T Th	Pull	211		
300 CONTEMP ECON PROB						03.0 to 09.0 Cr ¹	
Prereq: 214,215 or GSB 211 or consent of instructor							
1447	1	09.00	M W F	Faner	1032	Ford A	
Above section crosslisted with PRS 351 B							
301 ECONOMIC READINGS						01.0 to 06.0 Cr ¹	
Prereq: Consent of instructor and dept chairman							
1448	700	To be arranged					
303 POVERTY & THE ECON						03.0 Cr ¹	
1449	1	01.00	M W F	Faner	1006	Ellis R	
308 ECON & BUS STAT						04.0 Cr ¹	
1450	1	08.00	MTWTh	Faner	1230	Bohi D	
310 LABOR PROBLEMS						03.0 Cr ¹	
Prereq: 215 or consent of instructor							
1451	1	09.35-10.50	T Th	Faner	1030	Edelman M	
315 MONEY & BANKING I						03.0 Cr ¹	
Prereq: 214 or consent of instructor							
1452	1	08.00	M W F	Faner	1005	Layer R	
1453	2	08.00-09.15	T Th	Faner	1095	Layer R	
322 INTRO TO ECON DEVEL						03.0 Cr ¹	
Prereq: 214 and 215 or consent of instructor							
1454	1	11.00	M W F	Faner	1230	Vogel R	
330 PUBLIC FINANCE						03.0 Cr ¹	
Prereq: 215 or consent of instructor							
1455	1	02.00	M W F	Faner	1230	Fryman R	
333 ECON OF ENVIRONMENT						03.0 Cr ¹	
Prereq: 214, 215 or consent of instructor							
1456	1	09.00	M W F	Faner	1030	Pulsipher A	

334 HEALTH ECONOMICS					03.0 Cr
1457	1	02.00-03.15	T Th	H Ec	120 Layer R
340 INTERMED MICROECON					03.0 Cr ¹
Prereq: 215 or consent of instr					
1458	1	11.00-12.15	T Th	Cl	328 Lyon V
341 INTERMED MACROECON					03.0 Cr ¹
Prereq: 214 or consent of instr					
1459	1	12.00	M W F	Cl	328 Stalon C
350 HIST-ECON THOUGHT					03.0 Cr ¹
Prereq: 214 and 215; or GSB 211 or consent of instructor					
1460	1	01.00	M W F	Faner	1030
375 ECON OF ANTITRUST					03.0 Cr ¹
Prereq: 215 or consent of instructor					
1461	1	10.00	M W F	Wham	303 Stalon C
420 HIST AM GROWTH-20 C					03.0 Cr ¹
Prereq: 340 or 341 or consent of instructor					
1462	1	10.00	M W F	Pull	215 Ellis R
425 ECON IN GEOG & PLAN					04.0 Cr ¹
Prereq: Geography 300 or consent					
1463	1	03.00-04.50	M W	Faner	2533 Beazley R
Above section crosslisted with GEOG 422					
436 GOVERNMENT & LABOR					03.0 Cr ¹
Prereq: GSB 211 & 212 or equivalents or consent of instr					
1464	1	12.35-01.50	T Th	Nkrs C	218 Edelman M
Above section crosslisted with POLS 428					
440 PRICE,OUTPUT,ALLOCA					03.0 Cr ¹
Prereq: 215 or consent of instructor					
1465	1	11.00-12.15	T Th	Cl	328 Lyon V
441 CONTEM MACROECON TH					03.0 Cr ¹
Prereq: 214 or consent of instructor					
1466	1	12.00	M W F	Cl	328 Stalon C
467 INTRO-ECONOMETRICS					03.0 Cr ¹
Prereq: 308 or consent of instructor					
1467	1	12.35-01.50	T Th	Wham	206 Bohi D
479 PROBS IN BUS & ECON					03.0 Cr ¹
Prereq: 215; 308 or ADSC 208; MKTG 304					
1468	1	11.00-12.15	T Th	Wham	201 Layer R
Above section crosslisted with ADSC 479					
481 COMPARATIV ECON SYS					03.0 Cr ¹
Prereq: 340 or 440 or consent of instructor					
1469	1	09.35-10.50	T Th	Ag	218 Ford A
501 ECONOMICS READING					01.0 to 21.0 Cr
Prereq: Consent of instr & chairman					
1470	700	To be arranged			
507 PRACTIC-UGRAD TCHNG					01.0 Cr
1471	1	03.00	M	Faner	4135 Stalon C
510 RES-DES,METH,PRES					02.0 Cr
Prereq: Consent of instructor					
1472	1	03.00-04.50	M	Faner	4135 Adams D
517 MONETARY THEO & POL					03.0 Cr
Prereq: 541 or consent of instructor					
1473	1	02.00-03.15	T Th	Faner	4135
520A ECON DEV THEO & POL					03.0 Cr
Prereq: Consent of instructor					
1474	1	03.35-04.50	T Th	Faner	4135 Vogel R
522 MICROECON-LABOR MKT					03.0 Cr
Prereq: 538 or 540b or cons of instr					
1475	1	02.00	M W F	Faner	4135 Foran T
530 FOREIGN TRADE					03.0 Cr
Prereq: 340 or 440 or consent of instr					
1476	1	11.00	M W F	Faner	4135
540A MICROECON TH I & II					04.0 Cr
Prereq: 340 or 440 or consent of instr					
1477	1	05.45-07.25	T Th	H Ec	102
541A MACROECON TH I & II					03.0 Cr
Prereq: 441 or 341 or consent of instr					
1478	1	12.00	M W F	Nkrs C	118 Shields M
555 SEMINAR-ECON HIST					03.0 Cr
Prereq: Consent of instructor					
1479	1	01.00	M W F	Faner	4135 Adams D

¹Elective Pass/Fail ²Mandatory Pass/Fail

567A ECONOMETRICS I & II					03.0 Cr
Prereq: Math 514 or consent of instr					
1480	1	11.00-12.15	T Th	Faner	4135 Tracy R
570 SEM-CONTEMP MICROEC					03.0 Cr
Prereq: 540b					
1481	1	10.00	M W F	Faner	4135 Lyon V
571 SEM-CONTEMP MACROEC					03.0 Cr
Prereq: 541b or consent of instructor					
1482	1	09.00	M W F	Faner	4135
583 METHOD FOUNDAT-ECON					03.0 Cr
Prereq: 340 or 440, & 341 or 441, or consent of instr					
1483	1	06.00-09.00 pm	M	Nkrs C	410 Hickman C
585 SEMINAR-SOCIAL ECON					03.0 Cr
Prereq: 440 or 340 or consent of instr					
1484	1	06.00-09.00 pm	W	Nkrs C	410 Hickman C
590 SEM-CONTEMP ECON					01.0 Cr
1485	1	03.00-04.50	F	Faner	4135 Stalon C
599 THESIS					01.0 to 06.0 Cr
1486	700	To be arranged			
600 DISSERTATION					01.0 to 16.0 Cr
1487	700	To be arranged			

Education (EDUC)

200A SKLS ANALY&INDV LRN					01.0 to 02.0 Cr ²
Prereq: Consent of instructor					
1488	1	To be arranged			
Above sect meets in Ctr Bas Skill, Restr Instr Consent					
201 TCH ROLE-PUB SCH ED					01.0 Cr ²
1489	1	10.00	T	Wham	302
1490	2	10.00	Th	Wham	302
1491	3	11.00	M	Wham	302
1492	4	11.00	W	Wham	302
1493	5	01.00	T	Wham	302
1494	6	01.00	Th	Wham	302
1495	7	02.00	M	Wham	302
1496	8	02.00	W	Wham	302
300A STU TCH-PROV CERTIF					05.0 to 08.0 Cr
1497	1	To be arranged			
Restr to written consent of Dr Elaine Alden, Wham 135					
301 HUM GRTH,DEV & LRN					02.0 Cr
Prereq: GSB 202 or equiv, admission to teacher ed program					
1498	1	09.00	M W	Wham	228
1499	2	09.00	T Th	Wham	228
1500	3	10.00	M W	Wham	228
1501	4	10.00	T Th	Wham	228
1502	5	11.00	M W	Wham	228
1503	6	11.00	T Th	Wham	228
1504	7	12.00	M W	Wham	228
1505	8	12.00	T Th	Wham	228
1506	9	01.00	M W	Wham	228
1507	10	01.00	T Th	Wham	228
1508	11	02.00	M W	Wham	228
1509	12	02.00	T Th	Wham	228
1510	13	05.45-07.25	W	Wham	228

NOTE: FOR EDUCATION 302:

Enrollment by restricted class card only obtainable in WHAM 135

302 BAS TECH & PROC-INS					02.0 Cr
Prereq: Admission to teacher education program					
1511	1	08.00	T Th	Wham	203 Jackson M
Above sect restricted-see note below *					
1512	2	08.00	M W	Wham	203
Above sect restr to ELED, SP&A,AND SPE students only					
1513	3	09.00	T Th	Wham	317
Above sect restr to ELED, SP&A,AND SPE students only					
1514	4	10.00	M W	Wham	205
Above sect restricted-see note below *					
1515	5	10.00	M W	Wham	206
Above sect restr to ELED, SP&A,AND SPE students only					
1516	6	10.00	T Th	Wham	312
Above sect restricted-see note below *					
1517	7	11.00	T Th	H Ec	104 Keenan D
Above sect recommended for HEED, OE, BE,AND ag					
1518	8	11.00	T Th	Wham	203
Above sect restr to ELED, SP&A,AND SPE students only					

1519	9	01.00	T Th	Wham	205	
Above sect restricted-see note below *						
1520	10	01.00	T Th	Wham	203	
Above sect restr to ELED, SP&A,AND SPE students only						
1521	11	05.45-07.25	M	Wham	205	Jackson M
Above sect restricted-see note below *						

* Registration restricted to students in majors leading to the State of Illinois standard high school teaching certificate,or in MUSIC, ART,OR PE						
303 SCHOOL & SOCIETY						02.0 Cr
Prereq: Admission to teacher education program						
1522	1	08.00	T Th	Wham	329	
1523	2	09.00	M W	Wham	329	
1524	3	09.00	T Th	Wham	329	
1525	4	10.00	M W	Wham	329	
1526	5	10.00	T Th	Wham	329	
1527	6	11.00	M W	Wham	329	
Above section to study Philosophy of education only						
1528	7	12.00	T Th	Wham	329	
1529	8	01.00	M W	Wham	329	
1530	9	05.45-07.25	Th	Wham	328	
304A AV METHODS IN EDUC						02.0 Cr
Prereq: Admission to teacher education program						
1531	1	08.00	M W	Lawson	121	
Additional times to be arranged						
1532	2	02.00	T Th	Lawson	121	
Additional times to be arranged						
304B CAREER EDUCATION						02.0 Cr
Prereq: Admission to teacher education program						
1533	1	10.00	T Th	Wham	317	Stitt T
1534	2	07.30-09.15 pm	T	Tech D	130	Bailey L
304C EVAL IN CLASSROOM						02.0 Cr
Prereq: Admission to teacher education program						
1535	1	11.00		F Wham	302	Bardo H
		11.00	M	Wham	321	
1536	2	11.00		F Wham	302	Bardo H
		01.00	T	Wham	321	
1537	3	11.00		F Wham	302	Bardo H
		09.00	W	Wham	321	
304D TCH-MIDDLE & JR H S						02.0 Cr
Prereq: Admission to teacher education program						
1538	1	08.00	T Th	Wham	312	Jackson M
304E TCH SPC NEEDS LEARN						02.0 Cr
Prereq: Admission to teacher education program						
1539	1	09.00	T Th	Wham	312	Ewing N
304G DISCIP & CLSRM MGT						02.0 Cr
Prereq: Admission to teacher education program						
1540	1	10.00	W F	Wham	305	Mouw & Evans
304H EXTRA CUR JR,SR H S						02.0 Cr
Prereq: Admission to teacher education program						
1541	1	09.00	M W	Wham	305	
312 FLD OBSERV & PARTIC						01.0 to 08.0 Cr
Prereq: 301,302 & 303 or concur enroll						
1542	1	To be arranged				
Agriculture *						
1543	2	To be arranged				
Art *						
1544	3	To be arranged				
Biological Sciences *						
1545	4	To be arranged				
Business *						
1546	5	To be arranged				
Early Childhood *						
1547	6	To be arranged				
Elementary *						
1548	7	To be arranged				
English *						
1549	8	To be arranged				
Foreign Languages *						
1550	9	To be arranged				
Health Education *						
1551	10	To be arranged				
Home Economics *						
1552	11	To be arranged				
Instructional Materials *						
1553	12	To be arranged				
Journalism *						
1554	13	To be arranged				
Language Arts *						

- 1555 14 To be arranged
Mathematics *
- 1556 15 To be arranged
Music *
- 1557 16 To be arranged
Occupational Education *
- 1558 17 To be arranged
Physical Education *
- 1559 18 To be arranged
Physical Sciences *
- 1560 19 To be arranged
Social Studies
- 1561 20 To be arranged
Special Education- Behaviorally Disordered *
- 1562 21 To be arranged
Special Education- Learning Disabled *
- 1563 22 To be arranged
Special Education- Mentally Retarded *
- 1564 23 To be arranged
Speech *
- 1565 24 To be arranged
Speech Pathology *
- 1566 25 To be arranged
Special Education- TMH *

* EDUC 312 may be registered for only in connection with major department offerings. All sections-enrollment by restricted class card only, obtainable only in WHAM 135.

350 SEM IN PROF EDUC 03.0 Cr²

Prereq: Tch ed prg, acceptd for stu tch& conc enrl in 400,401

- 1567 1 To be arranged

400 STUDENT TEACHING 04.0 Cr

Prereq: Tch ed prg, acceptd for stu tch& conc enrl in 350,401

- 1568 1 To be arranged
Agriculture **
- 1569 2 To be arranged
Art **
- 1570 3 To be arranged
Biological Sciences **
- 1571 4 To be arranged
Business **
- 1572 5 To be arranged
Early Childhood **
- 1573 6 To be arranged
Elementary **
- 1574 7 To be arranged
English **
- 1575 8 To be arranged
Foreign Language **
- 1576 9 To be arranged
Health Education **
- 1577 10 To be arranged
Home Economics **
- 1578 11 To be arranged
Instructional Materials **
- 1579 12 To be arranged
Journalism **
- 1580 13 To be arranged
Language Arts **
- 1581 14 To be arranged
Mathematics **
- 1582 15 To be arranged
Music **
- 1583 16 To be arranged
Occupational Education **
- 1584 17 To be arranged
Physical Education **
- 1585 18 To be arranged
Physical Sciences **
- 1586 19 To be arranged
Social Studies **
- 1587 20 To be arranged
Special Education- Behaviorally Disordered **
- 1588 21 To be arranged
Special Education- Learning Disabled **
- 1589 22 To be arranged
Special Education- Mentally Retarded **
- 1590 23 To be arranged
Speech **
- 1591 24 To be arranged
Speech Pathology **

- 1592 25 To be arranged
Special Education- TMH **

401 STUDENT TEACHING 08.0 Cr

Prereq: Tch ed prg, acceptd for stu tch& conc enrl in 350,400

- 1593 1 To be arranged
Agriculture **
- 1594 2 To be arranged
Art **
- 1595 3 To be arranged
Biological Sciences **
- 1596 4 To be arranged
Business **
- 1597 5 To be arranged
Early Childhood **
- 1598 6 To be arranged
Elementary **
- 1599 7 To be arranged
English **
- 1600 8 To be arranged
Foreign Language **
- 1601 9 To be arranged
Health Education **
- 1602 10 To be arranged
Home Economics **
- 1603 11 To be arranged
Instructional materials **
- 1604 12 To be arranged
Journalism **
- 1605 13 To be arranged
Language Arts **
- 1606 14 To be arranged
Mathematics **
- 1607 15 To be arranged
Music **
- 1608 16 To be arranged
Occupational Education **
- 1609 17 To be arranged
Physical Education **
- 1610 18 To be arranged
Physical Sciences **
- 1611 19 To be arranged
Social Studies **
- 1612 20 To be arranged
Special Education- Behaviorally Disordered **
- 1613 21 To be arranged
Special Education- Learning Disabled **
- 1614 22 To be arranged
Special Education- Mentally Retarded **
- 1615 23 To be arranged
Speech **
- 1616 24 To be arranged
Speech Pathology **
- 1617 25 To be arranged
Special Education- TMH **

** Student teachers are expected to be on duty in public schools according to the calendar of the schools in which they are teaching. During the time in which University students are student teaching, it may therefore be necessary for them to follow a calendar different from the University semester calendar. When this is necessary, the Coordinator, Professional Education Experiences will inform the students far enough in advance that they may make necessary arrangements

590 SEM-CULTURAL FOUND 04.0 Cr

Prereq: Admission to the PH.D. program in education

- | | | | | | |
|------|---|-------------|------|------|-----------------|
| 1618 | 1 | 10.00-11.50 | M W | Wham | 301B Moore |
| 1619 | 2 | 10.00-11.50 | T Th | Wham | 301B Mckenzie W |
| 1620 | 3 | 02.00-03.50 | T Th | Wham | 326 Mckenzie W |
| 1621 | 4 | 05.45-07.25 | M W | Wham | 301B Dennis L |

591 SEM-BEHAV FOUND 04.0 Cr

Prereq: Admission to the PH.D. program in education

- | | | | | | |
|------|---|----------------|------|------|----------------|
| 1622 | 1 | 02.00-03.50 | M W | Wham | 212 Kelly |
| 1623 | 2 | 02.00-03.50 | T Th | Wham | 212 Cody J |
| 1624 | 3 | 07.35-09.15 pm | M W | Wham | 301B Deichmann |

Educational Leadership (EDL)

465 ADMIN-ADULT, COMM ED 03.0 Cr

- | | | | | | |
|------|---|----------------|---|------|---------------------|
| 1626 | 1 | 06.30-09.10 pm | W | Wham | 303 Ripple & Miller |
|------|---|----------------|---|------|---------------------|

500	EDUC RESEARCH METH	03.0 Cr
1627	1 06.30-09.10 pm Th Wham	305 Bach J
1628	2 06.30-09.10 pm T Wham	303 Bach J
501	ED ADM-TASKS, PROCES	03.0 Cr
1629	1 06.30-09.10 pm Th Wham	321 Sasse E
503	ED ADM-INTR TO THEO	03.0 Cr
1630	1 06.30-09.10 pm W Wham	312 Sasse E
505	ORG, ADM-MID, JR H.S.	02.0 Cr
1631	1 06.30-08.10 pm T Wham	312 Matthias W
513	SUPERVIS OF INSTRUC	03.0 Cr
1632	1 06.30-09.10 pm T Wham	212 Verduin J
519	ILLINOIS SCHOOL LAW	03.0 Cr
1633	1 06.30-09.10 pm W Wham	317 Shelton W
521	SCHOOL FACILITIES	03.0 Cr
1634	1 06.30-09.10 pm W Wham	212 Kaiser D
525	SCHOOL FINANCE THEO	03.0 Cr
1635	1 06.30-09.10 pm Th Wham	212 Kaiser D
530	HIST RESEARCH IN ED	03.0 Cr
1636	1 10.00-11.50 F Wham	212 Eaton W
To be arranged		
One additional hour		
539	EVAL, ACCRED-PUB SCH	03.0 Cr
Prereq: Consent of instructor		
1637	1 06.30-09.10 pm W Wham	307 Buser R
551	ED LDRSHP-POLIT ED	03.0 Cr
1638	1 06.30-09.10 pm M Wham	317 Ripple K
553	ED LDRSHP-SYST, ACCT	03.0 Cr
1639	1 06.30-09.10 pm M Wham	212 Stuck D
554	SEMINAR-PHIL OF ED	03.0 Cr
1640	1 06.30-09.10 pm T Wham	328 Dennis
590A	READ-ADMINISTRATION	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1641	700 To be arranged	
590B	READINGS-BUILDINGS	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1642	700 To be arranged	
590C	READ-SUPERV OF CURR	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1643	700 To be arranged	
590D	READINGS-FINANCE	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1644	700 To be arranged	
590E	READ-PHIL OF EDUC	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1645	700 To be arranged	
590J	READINGS-SOC OF ED	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1646	700 To be arranged	
590K	READ-ADULT, COMM ED	01.0 to 06.0 Cr
Prereq: Consent of chairman		
1647	700 To be arranged	
593A	INDIV RES-ADMIN	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1648	700 To be arranged	
593B	INDIV RES-BUILDINGS	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1649	700 To be arranged	
593C	INDIV RES-CURRIC	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1650	700 To be arranged	
593D	INDIV RES-FINANCE	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1651	700 To be arranged	
593E	INDIV RES-SCH LAW	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1652	700 To be arranged	
593G	IND RES-COMPAR EDUC	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1653	700 To be arranged	

593H	IND RES-HIST OF ED	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1654	700 To be arranged	
593I	IND RES-PHIL OF ED	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1655	700 To be arranged	
593J	IND RES-SOC OF EDUC	01.0 to 03.0 Cr
Prereq: Consent of chairman		
1656	700 To be arranged	
595	INTERNSHIPS-ED ADM	01.0 to 08.0 Cr
1657	700 To be arranged	
596	INDEPEND INVESTIGAT	01.0 to 06.0 Cr
1658	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
1659	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
1660	700 To be arranged	

Electrical Sciences and Systems Engineering (ESSE)

426	HYBRID COMPUTATION	03.0 Cr ¹
Prereq: ENGR 222 and MATH 305 or consent of instructor		
1661	1 11.00 M W F Tech D	108
446	ELEC CIRCUIT DESIGN	04.0 Cr ¹
Prereq: 455 or concurrent enrollment		
1662	1 01.00 M W F Nkrs C	116
	03.00-05.50 M Tech D	106
1663	2 01.00 M W F Nkrs C	116
	08.00-10.50 Th Tech D	106
455	LINEAR SYSTEMS	03.0 Cr ¹
Prereq: ENGR 335 and MATH 305		
1664	1 10.00 M W F Tech A	320
476	ELECTROMAG FIELDS I	03.0 Cr ¹
Prereq: Math 305		
1665	1 09.00 M W F Tech D	108
487	POWER SYS ANALY I	04.0 Cr ¹
Prereq: Engr 385		
1666	1 08.00 M W F Tech A	322
To be arranged		
One hour		
492	SPEC PROBS IN ENGR	01.0 to 05.0 Cr ¹
Prereq: Senior standing and consent of instructor		
1667	700 To be arranged	
527	DIGITAL-SYST DES II	03.0 Cr
Prereq: 427		
1668	1 02.00 M W F Tech D	108
556	MOD CONTROL THEORY	03.0 Cr
Prereq: 456 or consent of instructor		
1669	1 11.00 T Th Tech D	108
	03.00 F Tech D	108
577	ELECTROMAG FLDS III	04.0 Cr
Prereq: 477 or consent of instructor		
1670	1 10.00 M W F Tech D	108
To be arranged		
One hour		
580	SEMINAR	01.0 to 04.0 Cr
1671	1 To be arranged	
592	SPEC INVESTIGA ENGR	01.0 to 05.0 Cr
Prereq: Graduate standing & consent of instructor		
1672	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
1673	700 To be arranged	

Electronic Data Processing (EDP)

101A	INTRO TO DATA PROC	04.0 Cr
1674	1 08.00 M W Wham	302
	10.00 M W Faner	1031
	08.00 F Faner	1031
101B	INTRO TO DATA PROC	04.0 Cr
Prereq: 101a		
1675	1 08.00 T Th Faner	1326
	10.00 T Th F Faner	1031
107	ELEC D.P. CONCEPTS	03.0 Cr ¹
1676	1 12.00 MTWTh Faner	2365

203 JOB CONT LAN & UTIL						05.0 Cr
Prereq: 201 or 204						
1677	1	08.00-09.15	T Th	Faner	1006	
To be arranged						
Three lab hours						
204A COBOL PROGRAMMING						04.0 Cr
Prereq: 101						
1678	201	12.00	MTWTh	Faner	1004	
To be arranged						
Six lab hours--above section meets Aug 22 - Oct 12						
204B COBOL PROGRAMMING						04.0 Cr
Prereq: 204a						
1679	201	12.00	MTWTh	Faner	1006	
To be arranged						
Six lab hours--above section meets Oct 13 - Dec 19						
205 SYS DESIGN & DEVEL						03.0 Cr
Prereq: 104						
1680	1	08.00	M W F	Faner	1006	
207 DATA PROCESS PROJ						06.0 Cr
Prereq: Consent of department						
1681	1	To be arranged				
208A NUM CONTROL PROG						04.0 Cr
Prereq: TT 210						
1682	1	03.35-04.50	T Th	Faner	1026	
To be arranged						
Two lab hours						
209 DATA PROC INTERNSHP						01.0 to 08.0 Cr ²
Prereq: Consent of department						
1683	1	To be arranged				
217 COMPUT FOR BUS ADM						03.0 Cr
Prereq: Completion of GS math requirement or equivalent						
1684	1	08.00	M W F	Faner	1026	
1685	2	09.35-10.50	T Th	Faner	1222	
1686	3	11.00	M W F	Faner	1004	
1687	4	12.35-01.50	T Th	Faner	1026	
1688	5	02.00	M W F	Faner	1028	
1689	6	03.35-04.50	T Th	Faner	1224	

several 1-hr exams scheduled at 5:00 during semester.

Electronics Technology (ELT)

101 DC-AC CIRCUIT ANALY					05.0 Cr
Prereq: Concur enroll in STC 105a,b					
1690	1	09.00	M W F	Pull	316 Caldwell
		09.00	T Th	Pull	35
1691	2	10.00	MTWThF	Nkrs B	142 Fahlsing
1692	3	02.00	MTWThF	Nkrs B	142 Lackey
111 DC-AC CIR ANALY LAB					06.0 Cr
Prereq: Concurrent enrollment in 101					
1693	1	08.00-09.50	MTWThF	Nkrs C	107 Fahlsing
1694	2	10.00-11.50	MTWThF	Nkrs C	107 Caldwell
1695	3	01.00-02.50	MTWThF	Nkrs C	107
1696	4	03.00-04.50	MTWThF	Nkrs C	107 Lackey
121 ELECTRONIC DEVICES					03.0 Cr
Prereq: Concurrent enrollment in 111					
1697	1	08.00	M W F	LS II	430 Caldwell
1698	2	11.00	M W F	Pull	211 Shupe
1699	3	01.00	M W F	Nkrs B	142 Lackey
201 TELEM & IND CIRC TH					05.0 Cr
Prereq: 102					
1700	1	10.00	MTWThF	Pull	310 Johnson
1701	2	03.00	MTWThF	Nkrs B	142 Sheets
202 DIGITAL CIRC THEORY					05.0 Cr
Prereq: 102					
1702	1	09.00	M W F	Nkrs B	142 Harre
		09.00	T Th	Nkrs B	142
1703	2	02.00	MTWThF	Tech A	122 Shupe
211 TELEM & IND CIR LAB					06.0 Cr
Prereq: 102					
1704	1	08.00-09.50	MTWThF	Nkrs C	105 Johnson
1705	2	01.00-02.50	MTWThF	Nkrs C	105 Sheets
212 DIGITAL CIRC LAB					06.0 Cr
Prereq: 102					
1706	1	10.00-11.50	MTWThF	Nkrs C	105 Harre
1707	2	03.00-04.50	MTWThF	Nkrs C	105 Shupe

ELT						51
221 ELECT SYST ANALYSIS						03.0 Cr
Prereq: 102						
1708	1	11.00-12.15	T Th	Ag	150 Sheets	
1709	2	12.35-01.50	T Th	Tech D	131 Johnson	
223 F.C.C. TEST PREP						03.0 Cr
Prereq: 102						
1710	1	12.00	M W F	Nkrs B	142 Fahlsing	
224 COMPUTER SYS APPLIC						03.0 Cr
Prereq: 201 and concur enroll in 202						
1711	1	08.00	M W F	Nkrs B	142 Harre	
301 ELEC BIOMED INSTRUM						05.0 Cr
1712	1	10.00	M W F	Faner	2365 Krishnan	
		10.00	T Th	Tech A	310	
311 ELEC BIOMED INS LAB						06.0 Cr
1713	1	08.00-09.50	MTWThF	LS I	315 Krishnan	
Engineering (ENGR)						
100 INTR TO ENGINEERING						03.0 Cr
1714	1	03.00-04.50	M W F	Tech A	111	
To be arranged						
200 CONS OF MASS & ENER						02.0 Cr
Prereq: MATH 150, CHEM 224						
1715	1	11.00	T Th	Tech A	120	
1716	2	02.00	T Th	Tech A	120	
222 COMPUT METH-ENG&TEC						02.0 Cr ¹
Prereq: Math 111						
1717	1	09.00	T Th	Tech A	111	
		12.00	M	Tech A	208	
1718	2	09.00	T Th	Tech A	111	
		12.00	W	Tech D	108	
1719	3	09.00	T Th	Tech A	111	
		08.00	Th	Tech A	122	
1720	4	09.00	T Th	Tech A	111	
		08.00	W	Tech A	208	
1721	5	09.00	T Th	Tech A	111	
		04.00	W	Tech A	208	
1722	6	09.00	T Th	Tech A	111	
		12.00	T	Tech A	208	
1723	7	09.00	T Th	Tech A	111	
		08.00	F	Tech A	208	
1724	8	09.00	T Th	Tech A	111	
		01.00	F	Tech A	208	
260A MEC OF RIGID BODIES						02.0 Cr
Prereq: Mathematics 150						
1725	1	08.00	T Th	Tech A	120	
1726	2	10.00	T Th	Tech A	120	
1727	3	03.00	M W	Tech A	210	
260B MEC OF RIGID BODIES						03.0 Cr
Prereq: 260a or equivalent						
1728	1	08.00	M W F	Tech A	210	
1729	2	01.00	M W F	Ag	168	
300 ENGR THERMODYNAMICS						03.0 Cr
Prereq: 200						
1730	1	09.00	M W F	Tech A	320	
1731	2	03.00	M W F	Tech A	208	
302 ENGR HEAT TRANSFER						03.0 Cr
Prereq: 200, 222; MATH 305 or concurrent enrollment						
1732	1	09.00	M W F	Tech A	120	
311 MEC OF DEFOR BODIES						03.0 Cr
Prereq: 260a						
1733	1	10.00	M W	Tech A	120	
		10.00-12.50	Th	Tech D	14	
1734	2	10.00	M W	Tech A	120	
		12.00-02.50	Th	Tech D	14	
312 MAT SCI FUNDAMENTAL						03.0 Cr
Prereq: PHYS 205, MATH 250						
1735	1	03.00	M	F	Tech A	120
		01.00-03.50	W	Tech B	143	
1736	2	03.00	M	F	Tech A	120
		03.00-05.50	W	Tech B	143	
313 FLUID MECHANICS						03.0 Cr
Prereq: 260b or concurrent enrollment						
1737	1	02.00	M	F	Tech A	120
		12.00-02.50	T	Tech D	14A	

¹Elective Pass/Fail ²Mandatory Pass/Fail

1738	2	02.00	M	F	Tech A	120	
		02.00-03.50		Th	Tech D	14A	
335 ELECTRIC CIRCUITS							03.0 Cr ¹
Prereq: Math 250							
1739	1	08.00	M	W	F	Tech A	120
1740	2	09.00	M	W	F	Tech D	104
345 ELECTRONICS							03.0 Cr ¹
Prereq: 335							
1741	1	09.00		T	Th	Tech A	120
		03.00-05.50		T		Tech D	106
1742	2	09.00		T	Th	Tech A	120
		02.00-04.50		W		Tech D	106
1743	3	09.00		T	Th	Tech A	120
		12.00-02.50		Th		Tech D	106
361 ENGINEERING ECON							02.0 Cr
Prereq: Mathematics 111 or equivalent							
1744	1	08.00		T	Th	Tech A	111
Above section for Engineering students only							
1745	2	08.00		T	Th	Ag	168
Above section for Technology students only							
385 ELECTROMECHANICAL ENERGY CON							03.0 Cr ¹
Prereq: 335							
1746	1	11.00	M	W	F	Tech A	120
443 ENGINEERING DESIGN							04.0 Cr
Prereq: Senior standing in engineering							
1747	1	11.00		T	Th	Tech A	210
		03.00-04.50		T		Tech A	307
		03.00-04.50		Th		Tech A	307

Engineering Mechanics and Materials (EMM)

375 DES OF MACH ELEMENT							03.0 Cr
Prereq: Engr 260b,311 or equivalent							
1749	1	11.00	M	W	F	Tech D	12A
413 MEC FLUID-ANALY,DES							03.0 Cr
Prereq: Engr 313 or equivalent							
1750	1	01.00	M	W	F	Tech A	120
1751	2	01.00	M	W	F	Tech D	14A
417 FUND COMP FLUID FLO							03.0 Cr
Prereq: Engr 313 or equivalent							
1752	1	To be arranged					
419 SOIL MECH,FOUND ENG							03.0 Cr
Prereq: Engr 311, 313, or consent of instructor							
1753	1	03.00	M	W	F	Tech A	122
440 STRUCTURES							03.0 Cr
Prereq: Engr 311 or cons of instr							
1754	1	08.00	M	W	F	Tech A	122
447 INTERM MECH-MAT,STR							02.0 Cr
Prereq: Engr 311							
1755	1	09.00		T	Th	Tech D	14
1756	2	01.00		T	Th	Tech A	120
448 EXPER STRESS ANALYS							03.0 Cr
Prereq: Engr 311							
1757	1	02.00	M	W	F	Tech D	12A
451 NUMERICAL METH-MECH							03.0 Cr
Prereq: Engr 222,311,313 or consent of instructor							
1758	1	To be arranged					Eddingfield
492A PROB-STRESS ANALY							01.0 to 05.0 Cr
Prereq: Consent of instructor							
1759	700	To be arranged					
492B PROB-FLD FLOW ANALY							01.0 to 05.0 Cr
Prereq: Consent of instructor							
1760	700	To be arranged					
492C PROB-STRUCTURL ENGR							01.0 to 05.0 Cr
Prereq: Consent of instructor							
1761	700	To be arranged					
492D PROB-COMPUTAT MECH							01.0 to 05.0 Cr
Prereq: Consent of instructor							
1762	700	To be arranged					
492E PROB-MATERIALS ENGR							01.0 to 05.0 Cr
Prereq: Consent of instructor							
1763	700	To be arranged					

492F PROBLEMS-DYNAMICS		01.0 to 05.0 Cr
Prereq: Consent of instructor		
1764	700 To be arranged	
504A X-RAY DIFF-SOLID ST		03.0 Cr
Prereq: Consent of instr		
1765	1 To be arranged	
512 INTRO THEOR ELASTIC		03.0 Cr
Prereq: Consent of instructor		
1766	1 To be arranged	
514 MECH INVISCID FLUID		03.0 Cr
Prereq: 414 or consent of instructor		
1767	1 To be arranged	
542 THEORY OF PLATES		02.0 Cr
Prereq: Math 305 or 407 or consent of instructor		
1768	1 To be arranged	
544 ADV DES REIN CONCRT		03.0 Cr
Prereq: 444 or consent of instructor		
1769	1 To be arranged	Nowacki R
580 SEMINAR		01.0 to 04.0 Cr
Prereq: Graduate standing		
1770	1 To be arranged	
592A INVEST-STRESS ANALY		01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
1771	700 To be arranged	
592B INV-FLD FLOW ANALY		01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
1772	700 To be arranged	
592C INV-STRUCTURAL ENGR		01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
1773	700 To be arranged	
592D INV-COMPUTAT MECH		01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
1774	700 To be arranged	
592E INV-MATERIALS ENGR		01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
1775	700 To be arranged	
592F INVEST-DYNAMICS		01.0 to 04.0 Cr
Prereq: Graduate standing and consent of instructor		
1776	700 To be arranged	
599 THESIS		01.0 to 06.0 Cr
1777	700 To be arranged	

Engineering Technology (ET)

103 ENGINEERING DRAWING I							03.0 Cr
1778	1	09.00	M	W	F	Tech A	111
		10.00	M	W	F	Tech A	207
1779	2	09.00	M	W	F	Tech A	111
		11.00	M	W	F	Tech A	207
1780	3	09.00	M	W	F	Tech A	111
		01.00	M	W	F	Tech A	207
1781	4	09.00	M	W	F	Tech A	111
		02.00	M	W	F	Tech A	207
1782	5	09.00	M	W	F	Tech A	111
		03.00	M	W	F	Tech A	207
202 STRUCTURAL GRAPHICS							02.0 Cr
Prereq: 103							
1783	1	10.00-11.50		T	Th	Tech A	207 Klopp M
245A ELECTRIC SYSTEMS-INDUSTRIAL							03.0 Cr
Prereq: Math 111							
1784	1	12.00	M	W	F	Tech A	111
		08.00-09.50		T		Tech D	104
1785	2	12.00	M	W	F	Tech A	111
		10.00-11.50		T		Tech D	104
1786	3	12.00	M	W	F	Tech A	111
		12.00-01.50		T		Tech D	104
260A STATISTICS & STRENGTH-MATERIALS							04.0 Cr
Prereq: Math 150 or concurrent enroll							
1787	1	08.00	M	W	Th	F	Tech A 308
1788	2	11.00	M	W	Th	F	Tech A 310
260B DYNAMICS							03.0 Cr
Prereq: 260a							
1789	1	01.00	M	W	F	Tech A	308
263 MINE SURVEYING							03.0 Cr
Prereq: Math 111							
1790	1	04.00	M	W	Th	Tech D	130
		05.00-06.50		W		Tech D	130

301A REFRIGERATION & A/C				03.0 Cr
Prereq: 313a				
1791	1 02.00	M W F	Tech A	208 Williamson J
304A ELECTRICAL CIRCUITS				04.0 Cr
Prereq: Math 150 or concur enrollment				
1792	1 10.00	M W F	Tech A	310
	01.00-02.50	T	Tech D	106
	08.00		F Tech D	104
1793	2 10.00	M W F	Tech A	310
	01.00-02.50	Th	Tech D	104
	08.00		F Tech D	104
308A MACHINE DESIGN				03.0 Cr
Prereq: 260a				
1794	1 10.00	M W F	Tech A	322 Dunning E
310B HEAVY CONSTRUCTION				03.0 Cr
Prereq: 310a				
1795	1 08.00	M W F	Tech A	319 Moeller C
313A ELEM HEAT POWER				03.0 Cr
Prereq: Math 150				
1796	1 09.00	M W F	Tech A	308
314B SOIL MECHANICS				03.0 Cr
Prereq: 260a, 314a				
1797	1 08.00	T Th	Tech A	208 Ferrell C
	03.00-05.50	T	Tech D	12A
315 EL STRUCTURAL ANALY				03.0 Cr
Prereq: 260a				
1798	1 10.00	M W F	Tech A	308 Ferrell C
318A HYDRAULIC & PNEUMAT				02.0 Cr
Prereq: 260b or concurrent enrollment				
1799	1 08.00	M W	Tech A	320
318C HYDRAULIC & PNEUMAT				03.0 Cr
Prereq: 318a				
1800	1 09.00	W F	Tech A	322 Ferrell C
	02.00-04.50	M	Tech D	14A
1801	2 09.00	W F	Tech A	322 Ferrell C
	01.00-03.50	Th	Tech D	14A
320 MECHANICAL LAB				03.0 Cr
Prereq: 313a				
1802	1 01.00-04.50	T	Tech D	122 Williamson J
332A ELECMECH PRIN & DEV				03.0 Cr
Prereq: 304a or concurrent enrollment				
1803	1 04.00	M W F	Tech A	308
	01.00-02.50	T	Tech D	122
1804	2 04.00	M W F	Tech A	308
	01.00-02.50	Th	Tech D	122
363B SURVEYING				03.0 Cr
Prereq: 363a				
1805	1 09.00	T Th	Tech A	319 Moeller C
	01.00-03.50	M	Tech A	319 Moeller C
1806	2 01.00-03.50	W	Tech A	319 Moeller C
	01.00-03.50	W	Tech A	319
364A HIGHWAY ENGR TECH				04.0 Cr
Prereq: 363a, 314a or consent of instructor				
1807	1 11.00	M W F	Tech A	319 Moeller C
	12.00-02.50	T	Tech D	14
1808	2 11.00	M W F	Tech A	319
	12.00-02.50	Th	Tech D	14
403A ELECTRONICS TECHNOL				04.0 Cr
Prereq: 304b				
1809	1 03.00	M W F	Tech A	310
	06.00-08.50 pm	T	Tech D	106
1810	2 03.00	M W F	Tech A	310
	06.00-08.50 pm	Th	Tech D	106
424A POWER SYSTEMS TECH				03.0 Cr
Prereq: 313a				
1811	1 03.00	M W F	Tech A	320 Williamson J
426B PHOTOGRAMMETRY				02.0 Cr
Prereq: 426a or consent of instr				
1812	1 09.00	M	Tech A	319
	01.00-03.50		F Tech A	319
1813	2 09.00	M	Tech A	319
	04.00-06.50	W	Tech A	319

¹Elective Pass/Fail ²Mandatory Pass/Fail

437A COMMUNICAT SYS TECH				03.0 Cr
Prereq: 304b				
1814	1 02.00	M W F	Tech A	320
	08.00-09.50	T	Tech D	106
1815	2 02.00	M W F	Tech A	320
	10.00-11.50	T	Tech D	106
438B DES & CONTR-DIG SYS				04.0 Cr
Prereq: Engr 222				
1816	1 01.00	M W F	Tech A	310 Barbay J
	08.00-09.50	Th	Tech D	122
1817	2 01.00	M W F	Tech A	310 Barbay J
	10.00-11.50	Th	Tech D	122
492 SP PROB-INDUS & TEC				01.0 to 06.0 Cr
Prereq: Consent of instructor				
1818 700 To be arranged				
English (ENG)				
209 INTRO-FORMS OF LIT				03.0 Cr
Prereq: GSD 117,118,or 119,or equiv				
2009	1 01.00	M W F	Faner	1228 Boyle
281 CREAT WRIT-BEG FICT				03.0 Cr ¹
Prereq: GSD 119 or consent of instr				
2010	1 09.00	M W F	Faner	1222 Little J
2011	2 01.00	M W F	H Ec	118 Penner J
2012	3 02.00	M W F	Faner	2008 Howell
282 CREAT WRIT-BEG POET				03.0 Cr ¹
Prereq: GSD 119 or consent of instr				
2013	1 09.00	M W F	H Ec	120 Razis
283 CREAT WRIT-BEG DRAM				03.0 Cr ¹
Prereq: GSD 119 or consent of instr				
2014	1 11.00	M W F	Faner	2512 Hatton T
290 INTERMED EXPO WRIT				03.0 Cr
Prereq: GSD 117,118,or 119,or equiv				
2015	1 08.00	M W F	Faner	2512 Donow
2016	2 09.00	M W F	H Ec	122
2017	3 11.00	M W F	Wham	317
2018	4 12.00	M W F	Wham	303 Moss
2019	5 12.00	M W F	H Ec	120 Donow
2020	6 12.00	M W F	Faner	2008 Cassidy
2021	7 12.35-01.50	T Th	Faner	2512 Hillegas
2022	8 01.00	M W F	Wham	305 Moss
2023	9 02.00-03.15	T Th	Faner	2512 Hillegas
2024	10 02.00	M W F	Faner	2512 Boyle
2025	11 03.00	M W F	Faner	2512 Hurley
2026	12 04.00	M W F	H Ec	104 Simeone
291 WRITING RES PAPERS				01.0 Cr
Prereq: GSD 117,118, or 119 or equivalent				
2027	201 09.00	T Th	Pull	41
Meets 8/23- 10/12				
2028	202 09.00	T Th	Pull	41
Meets 10/13-12/9				
300 INTRO-LANG ANALYSIS				03.0 Cr
2029	1 11.00-12.15	T Th	Wham	305 Weshinsky R
2030	2 12.35-01.50	T Th	Pull	229 Friend
302 LIT HIST OF ENGLAND				03.0 Cr
2031	1 09.00	M W F	Faner	1230 Brown
2032	2 03.00	M W F	Faner	1224 Simeone
309 LIT HIST OF U S				03.0 Cr
2033	1 10.00	M W F	Faner	1226 Taylor
2034	2 02.00	M W F	Faner	1228 Peterson R
381 CREAT WRIT-ADV FICT				03.0 Cr ¹
Prereq: 281 or consent of instr				
2035	1 12.00	M W F	Pull	316 Penner
390 ADVANCED COMP				03.0 Cr
Prereq: C aver in GSD 101 & 117,118 or 119, or equivalent				
2036	1 09.00	M W F	Faner	2008 Peterson
Above section restr topre-law students				
2037	2 11.00-12.15	T Th	Faner	2205 Dodd
Above section restr to Pre-law students				
2038	3 01.00	M W F	Faner	2512 Stibitz
391 PRECIS IN READ&WRIT				03.0 Cr
Prereq: B grade in GSD 117,118,or 119 or C in English 290				
2039	1 01.00	M W F	H Ec	201 Goodin

403	HISTORY-ENG LANG	03.0 Cr ¹
2040	1 11.00 M W F Faner	1032 Rainbow R
404	MID ENG LIT-EX CHAU	03.0 Cr ¹
2041	1 12.00 M W F Faner	1230 Hatton T
422	VICTORIAN POETRY	03.0 Cr ¹
2042	1 08.00 M W F H Ec	104 Partlow
423	MOD BRITISH POETRY	03.0 Cr ¹
2043	1 01.00 M W F H Ec	202 Peterson R
426	AMER POETRY TO 1900	03.0 Cr ¹
2044	1 09.00 M W F Faner	2463 Stibitz E
451	18TH C ENG FICTION	03.0 Cr ¹
2045	1 09.00 M W F Faner	1226 Schonhorn
453	MOD BRITISH FICTION	03.0 Cr ¹
2046	1 10.00 M W F H Ec	122 Boyle
458	AMER FIC TO 19TH C	03.0 Cr ¹
2047	1 03.00 M W F H Ec	203 Webb H
459	AMER FIC OF 20TH C	03.0 Cr ¹
2048	1 03.00 M W F H Ec	201 Howell
465	MOD CONTINENT DRAMA	03.0 Cr ¹
2049	1 01.00 M W F Wham	319 Raizis
468	AMERICAN DRAMA	03.0 Cr ¹
2050	1 06.00-09.00 pm T Pull	118 Hurley
471	SHAKESPEARE-I	03.0 Cr
2051	1 10.00 M W F Faner	1230 Donow
472	SHAKESPEARE-II	03.0 Cr
2052	1 02.00 M W F Wham	326 Brown
485	HS COMP, LAN, LIT, RD	03.0 Cr
2053	1 12.00 M W F Faner	1224 Appleby B
491	EXPOS TECH WRITING	03.0 Cr ¹
Prereq: GSD 117, 118, or 119, or equivalent		
2054	1 11.00 M W F Faner	2061 Kvernes
492	CREAT WRITE-SR PROJ	03.0 to 09.0 Cr ¹
Prereq: Consent of instructor		
2055	700 To be arranged	
493	SP TOPICS-LIT & LAN	03.0 Cr ¹
Prereq: Consent of instructor		
2056	1 02.00 M W F Faner	2365 Taylor
Topic: Contemporary American Fiction-1940 to present		
495	LITERARY CRITISM	03.0 Cr ¹
2057	1 03.00 M W F Faner	2006 Goodin
499	READINGS-LIT & LANG	02.0 to 03.0 Cr
2058	700 To be arranged	
500	MAT & METH-RES LIT	02.0 Cr
2059	1 01.00 T Th Lib	219 Cohn A
501	OLD ENGLISH GRAMMAR	03.0 Cr
2060	1 08.00 M W F Faner	2006
514	STUDIES-18C ENG LIT	03.0 Cr
2061	1 08.00-09.15 T Th Wham	328 Vieth
Topic: Swift		
518	BRIT LIT 1885-1914	03.0 Cr
2062	1 09.35-10.50 T Th Wham	305 Hillegas
Topic: H. B. Wells and G. B. Shaw		
521	ENG ROMATIC WRITERS	03.0 Cr
2063	1 11.00-12.15 T Th Faner	2008 Benziger J
Topic: Byron and Keats		
536	EARLY 19C AMER WRIT	03.0 Cr
2064	1 02.00-03.15 T Th Faner	2205 Moss
Topic: Hawthorne Tales and Novels		
538	20TH C AMER WRITERS	03.0 Cr
2065	1 03.35-04.50 T Th Faner	2061 Piper D
Topic: Faulkner and Flannery Oconnor		
580	TRADIT THEMES-LIT	03.0 Cr
2066	1 06.00-09.00 pm M Pull	310 Simeone
581	PROB-TEACHING ENG	03.0 Cr
2067	1 01.00 M W F Wham	326
Topic: Composition		

595	INDEPENDENT READING	01.0 to 09.0 Cr
Prereq: 24 classroom cr hrs beyond M.A., exclu audit & read		
2068	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
2069	700 To be arranged	

Family Economics and Management (FE&M)

240	CONSUMER RESOURCES	03.0 Cr
2071	1 01.00 M W F H Ec	120 Kearn
320	HOUSEHOLD EQUIPMENT	02.0 Cr
2072	1 10.00 T H Ec	5 Myers
	10.00-11.50 Th H Ec	5 Kearn
330	HOUSING	03.0 Cr
2073	1 10.00 M W F H Ec	104 Kearn
340	CONSUMER PROBLEMS	03.0 Cr
2074	1 09.00 M W F H Ec	203 Edmondson
341	CONSUM & THE MARKET	03.0 Cr
2075	1 01.00 M W F H Ec	122 Myers
350	MGT OF FAM RESOURCE	03.0 Cr
2076	1 11.00 M W F H Ec	122 Myers
351	HOME MGT PRACTICUM	02.0 Cr
Prereq: 350 and consent of chairman		
2077	1 01.00-02.50 T Th H Ec	401 Edmondson
370	MGT FOR LOW-INC FAM	03.0 Cr
2078	1 11.00-12.15 T Th H Ec	120 Edmondson
380	SPECIAL PROBLEMS	02.0 to 06.0 Cr
2079	700 To be arranged	
407	WORKSHOP	01.0 to 03.0 Cr
2080	1 06.00-08.30 pm W H Ec	401 Brooks
Topic: Consumerism		
430	HOUSING ALTERNATIVE	03.0 Cr
Prereq: 330 or consent of instr		
2081	1 06.00-08.30 pm T H Ec	401 Kearn
445	FAMILY FIN MGT	03.0 Cr
Prereq: 340 & 350, equivalent or consent of instr		
2082	1 03.00-04.15 M W H Ec	401 Brooks
490	READINGS	01.0 to 04.0 Cr
Prereq: 6 hrs in FE&M and consent of chairperson		
2083	700 To be arranged	
494	FIELD EXPERIENCE	01.0 to 04.0 Cr
Prereq: 370 and cons of chairperson		
2084	700 To be arranged	
499	SENIOR SEMINAR	01.0 Cr
2085	1 To be arranged	
500	RESEARCH METHODS	03.0 Cr
Prereq: Statistics or concurrent enrollment		
2086	1 06.00-08.30 pm M H Ec	401 Brooks
550	ADVANCED HOME MGT	03.0 Cr
Prereq: 350		
2087	1 03.00-04.15 M W H Ec	5
570	SEMINAR IN FE&M	03.0 Cr
2088	1 To be arranged	Brooks
592	SPECIAL PROBLEMS	01.0 to 05.0 Cr
Prereq: 6 hours in FE&M and consent of chairperson		
2089	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
2090	700 To be arranged	

Finance (FIN)

271	BUSINESS LAW I	03.0 Cr ¹
2094	1 09.00 M W F Pull	34 Tyler
2095	2 10.00 M W F Faner	1326 Tyler
2096	3 12.00 M W F Wham	308 Tyler
2097	4 02.00-03.15 T Th Faner	1326 Henkel
301	READINGS IN FINANCE	01.0 to 06.0 Cr ²
Prereq: Consent of dept chairman		
2098	700 To be arranged	
320	INTRO TO BUS FIN	03.0 Cr
Prereq: ACCT 222, ECON 215, ADSC 208		
2099	1 08.00 M W F Wham	201 Sprecher
2100	2 08.00-09.15 T Th Lawson	101
2101	3 09.35-10.50 T Th Lawson	101

2102	4	10.00	M	W	F	Ag	214
2103	5	11.00	M	W	F	Faner	1005 Sprecher

323 INVESTMENTS								03.0 Cr ¹
Prereq: Accounting 210 or 221								
2104	1	09.35-10.50	T	Th		Nkrs C	218	
2105	2	11.00-12.15	T	Th		Lawson	101	
325 FINANCIAL MARKETS								03.0 Cr
Prereq: Economics 214,215, Administrative Sciences 208								
2106	1	01.00	M	W	F	H Ec	203 Gehr Adam K Jr	
2107	2	02.00	M	W	F	Cl	109 Gehr	
326 MGT OF FIN INSTITUT								03.0 Cr
Prereq: 320; Economics 315 (or concurrent enrollment)								
2108	1	09.00	M	W	F	Wham	328	
327 INSURANCE								03.0 Cr ¹
2109	1	12.35-01.50	T	Th		Cl	328	
2110	2	06.30-09.15 pm	T			Cl	109	
328 REAL ESTATE								03.0 Cr ¹
2111	1	06.30-09.15 pm	W			Cl	109	
370 LEGAL&SOC ENVIR-BUS								03.0 Cr ¹
2112	1	09.35-10.50	T	Th		Wham	308	
2113	2	11.00-12.15	T	Th		Wham	308	
372 BUSINESS LAW II								03.0 Cr
2114	1	08.00	M	W	F	Cl	109 Waters Gola	
2115	2	09.00	M	W	F	Faner	1136 Waters Gola	
421 MGT OF BUSINESS FIN								03.0 Cr
Prereq: 320								
2116	1	01.00	M	W	F	Cl	328	
422 ACQUIS,DIVEST,RECAP								03.0 Cr
Prereq: 320								
2117	1	03.35-04.50	T	Th		Wham	301A	
476 PROB IN LABOR LAW								03.0 Cr ¹
2118	1	11.00	M	W	F	Wham	301A Waters G	

Food & Nutrition (F&N)

100 FUND OF NUTRITION								03.0 Cr ¹
2124	1	08.00	M	W	F	H Ec	140B Osborn	
156 FUNDAMENT OF FOODS								03.0 Cr
2125	1	10.00	T			H Ec	206 Osborn	
		11.00-12.50	T	Th		H Ec	212	
2126	2	10.00	T			H Ec	206 Osborn	
		02.00-03.50	T	Th		H Ec	212	
2127	3	10.00	T			H Ec	206 Osborn	
		01.00-02.50	W	F		H Ec	212	
256 SCIENCE OF FOOD								03.0 Cr
Prereq: 156, CHEM 140 or equivalent								
2128	1	10.00	M			H Ec	102 Becker	
		10.00-11.50	T	Th		H Ec	214	
2129	2	10.00	M			H Ec	102 Becker	
		10.00-11.50	W	F		H Ec	214	
320 NUTRITION								03.0 Cr
Prereq: 100, CHEM 140 or equivalent								
2130	1	09.00	M	W	F	H Ec	106 Payne I	
335 MEAL MANAGEMENT								02.0 Cr
Prereq: 256								
2131	1	11.00-01.50		Th		H Ec	107 Drayton	
2132	2	03.00-05.50		W		H Ec	107 Becker	
356 EXPERIMENTAL FOODS								03.0 Cr
Prereq: 256								
2133	1	03.00	M			H Ec	214 Payne	
		03.00-04.50		W	F	H Ec	214	
360A QUANTITY FOOD PROD								03.0 Cr
Prereq: 256 or equivalent								
2134	1	08.00	M	W		H Ec	101 Drayton	
		08.00-10.50			F	H Ec	101 Drayton	
361 FOOD SERV ORG & MGT								03.0 Cr
2135	1	01.00	M	W	F	H Ec	101 Drayton	
362 INST EQUIP & LAYOUT								02.0 Cr
Prereq: 361								
2136	1	08.00	T	Th		H Ec	101 Becker	
371 FIELD EXPERIENCE								02.0 to 04.0 Cr ¹
Prereq: 361 or equivalent & consent of chairman								
2137	700	To be arranged						

¹Elective Pass/Fail ²Mandatory Pass/Fail

373 FOOD & BEV CONTROLS							02.0 Cr
Prereq: Acct 210 or equivalent							
2138	1	11.00	M	W	H Ec	101 Drayton	
390 DIET THERAPY							03.0 Cr
Prereq: 320							
2139	1	04.00	T	Th	H Ec	201 Endres	
To be arranged							
Two additional hours in H Ec 214							
420 RECENT DEV IN NUTRI							03.0 Cr ¹
Prereq: 320 or equivalent							
2140	1	11.00	M	W	H Ec	107 Endres	
To be arranged							
One additional hour							
481 READINGS							02.0 Cr ¹
Prereq: 320 or equiv, consent of instr& dept chairman							
2141	700	To be arranged					
490 NUTRITION & GROWTH							02.0 Cr ¹
Prereq: Consent of instructor & dept chairman							
2142	1	03.00	M	W	H Ec	212 Endres	
500 RESEARCH METHODS							03.0 Cr
Prereq: 420 or equivalent & statistics							
2143	1	01.00	M		H Ec	101 Konishi	
		01.00-02.50		W F	H Ec	204	
515 SEMINAR							01.0 Cr
Prereq: 420 or 421							
2144	1	08.00		Th	H Ec	107 Payne	
572 SPECIAL PROBLEMS							02.0 Cr
Prereq: Consent of instructor							
2145	700	To be arranged					
599 THESIS							01.0 to 06.0 Cr
Prereq: Approval of instructor							
2146	700	To be arranged					

Foreign Languages and Literatures (FL)

506 RESEARCH PROB-FR		01.0 to 04.0 Cr	
2150	700 To be arranged		
507 RESEARCH PROB-GER		01.0 to 04.0 Cr	
2151	700 To be arranged		
509 RESEARCH PROB-SPAN		01.0 to 04.0 Cr	
2152	700 To be arranged		
569 BIBL & RES TECH-SPA		03.0 Cr	
2153	1 10.00 M W F Lib	219	

Forestry (FOR)

200 INTRO TO FORESTRY								01.0 Cr ¹
2154	1	08.00	M			Wham	105 Yambert P	
		08.00-09.50	M			Ag	187	
2155	2	08.00	M			Wham	105 Yambert P	
		10.00-11.50	M			Ag	187	
2156	3	08.00	M			Wham	105 Yambert P	
		01.00-02.50	M			Ag	187	
2157	4	08.00	M			Wham	105 Yambert P	
		03.00-04.50	M			Ag	150	
2158	5	08.00	M			Wham	105 Yambert P	
		08.00-09.50	W			Ag	187	
2159	6	08.00	M			Wham	105 Yambert P	
		10.00-11.50	W			Ag	187	
2160	7	08.00	M			Wham	105 Yambert P	
		01.00-02.50	W			Ag	150	
2161	8	08.00	M			Wham	105 Yambert P	
		03.00-04.50	W			Ag	150	
2162	9	08.00	M			Wham	105 Yambert P	
		08.00-09.50	F			Ag	187	
2163	10	08.00	M			Wham	105 Yambert P	
		10.00-11.50	F			Ag	187	

Note- FOR 200 lectures & labs meet alternate weeks with lectures meeting first week.

201 CLASSIF & SILVICS								03.0 Cr
Prereq: Bot 200 and 201								
2164	1	10.00	M	W	F	Nkrs B	440 Fralish J	
202 TREES & FORESTS LAB								01.0 Cr
Prereq: Bot 200 and 201								
2165	1	08.00-09.50	T			Ag	187 Fralish J	
2166	2	08.00-09.50		Th		Ag	187 Fralish J	

2167	3	10.00-11.50	T	Ag	187	Fralish J
2168	4	10.00-11.50	Th	Ag	187	Fralish J
2169	5	03.00-04.50	M	Ag	187	Fralish J
300 FOR RES MEASUREMENT					03.0	Cr
Prereq: Math 140 and 283						
2170	1	09.00	T Th	Ag	166	Myers C
		03.00-04.50	M	Ag	195	
2171	2	09.00	T Th	Ag	166	Myers C
		03.00-04.50	T	Ag	195	
2172	3	09.00	T Th	Ag	166	Myers C
		03.00-04.50	W	Ag	195	
301 SOC INFLUENCES-FOR					03.0	Cr
Prereq: A course in sociology and a course in POLS						
2173	1	08.00	M W F	Ag	166	Burde J
311 RES PHOTOGRAMMETRY					03.0	Cr
2174	1	01.00	T Th	Ag	166	Kung F
		03.00-04.50	Th	Ag	195	
2175	2	01.00	T Th	Ag	166	Kung F
		01.00-02.50	F	Ag	195	
2176	3	01.00	T Th	Ag	166	Kung F
		03.00-04.50	F	Ag	195	
331 FOREST ECOSYSTEMS					03.0	Cr
Prereq: 201, 202, 240, Biology 307						
2177	1	10.00	M W F	Lawson	121	Weaver G
		01.00	M	Ag	148	
2178	2	10.00	M W F	Lawson	121	Weaver G
		01.00	W	Ag	148	
2179	3	10.00	M W F	Lawson	121	
		02.00	M	Ag	150	
350 WOOD AS RAW MATERL					02.0	Cr
2180	1	01.00	T	Ag	187	Spalt H
		01.00-02.50	Th	Ag	187	
381 FORESTRY SEMINAR					01.0	Cr
2181	1	To be arranged				
391 SPEC PROB IN FOR					01.0 to 04.0	Cr
Prereq: Junior standing & consent of the dept chairman						
2182	700	To be arranged				
401 ENVIRONMENT EDUCAT					03.0	Cr
2183	1	09.00-11.50	Th	Ag	225	Yambert P
Plus Field Trips To Be Arranged						
405 FOR MGT-WILDLIFE					02.0	Cr
Prereq: FOR major, or consent of instr						
2184	1	10.00	T Th	Ag	144	Gaffney G
410 FOR RES ADMIN & POL					03.0	Cr
Prereq: 301						
2185	1	02.00	M W F	Ag	214	Chilman K
		03.00	F	Ag	214	
2186	2	02.00	M W F	Ag	214	Chilman K
		03.00	F	Ag	214	
411 FOR RESOURCES ECON					03.0	Cr
Prereq: AGI 204 or ECON 215						
2187	1	12.00	T Th	Ag	166	Burde J
		03.00	M	Ag	218	
2188	2	12.00	T Th	Ag	166	Burde J
		03.00	W	Ag	218	
2189	3	12.00	T Th	Ag	166	Burde J
		03.00	F	Ag	218	
416 FOREST RESOURCE MGT					03.0	Cr
Prereq: Summer camp or cons of instr						
2190	1	01.00	T Th	Ag	168	Roth P
		02.00-04.50	T	Ag	187	
2191	2	01.00	T Th	Ag	168	Roth P
		03.00-05.50	W	Ag	187	
2192	3	01.00	T Th	Ag	168	Roth P
		03.00-05.50	Th	Ag	187	
420 PARK & WILDLAND MGT					03.0	Cr
Prereq: 320c or 422t						
2193	1	10.00	T Th	Ag	166	Mecurdy D
		10.00	M	Ag	222	
2194	2	10.00	T Th	Ag	166	Mecurdy D
		10.00	T	Ag	222	
422T PARK MGT FIELD TRIP					02.0	Cr
Prereq: 320 or 320c & consent of instr						
2195	1	To be arranged				

423 ENVIRONMENT INTERP					03.0	Cr
2196	1	02.00	M	Ag	144	
		02.00-04.50	W	Ag	144	
430 WILDLD WATERSHD MGT					03.0	Cr
Prereq: 331						
2197	1	08.00	M W F	Ag	214	Aubertin G
		10.00	M	Ag	170	
2198	2	08.00	M W F	Ag	214	Aubertin G
		10.00	W	Ag	170	
2199	3	08.00	M W F	Ag	214	Aubertin G
		10.00	F	Ag	170	
492 SPEC STU-HONOR STU					01.0 to 04.0	Cr
Prereq: Consent of chairman and 3.0 minimum GPA						
2200	700	To be arranged				
494 PRACTICUM					01.0 to 06.0	Cr
Prereq: Consent of instructor						
2201	700	To be arranged				
500 RESEARCH PRINCIPLES					02.0	Cr
Prereq: 4 hrs in statistical methods or consent of instr						
2202	1	To be arranged				
501 GRADUATE SEMINAR					01.0	Cr
2203	1	04.00	T	Ag	155	Fralish J
512 TREE SELECT & BREED					02.0	Cr
Prereq: 412 or consent of instructor						
2204	1	01.00	M W	Ag	218	Kung F
520 ADV PARK PLANNING					02.0	Cr
Prereq: 421 or consent of instructor						
2205	1	To be arranged				Chilman K
521 REC BEHAV-WILDLANDS					02.0	Cr
2206	1	To be arranged				Chilman K
531 BIOL PRODUCTIV-FOR					02.0	Cr
Prereq: 331 or equivalent						
2207	1	03.00-04.50	M W	Ag	182	Weaver G
588 INTERNATL GRAD STU					01.0 to 06.0	Cr
2208	700	To be arranged				
590 READ-FOR RESOURCES					01.0 to 04.0	Cr
Prereq: Consent of instructor						
2209	700	To be arranged				
593 INDIVIDUAL RESEARCH					01.0 to 04.0	Cr
2210	700	To be arranged				
599 THESIS					01.0 to 06.0	Cr
2211	700	To be arranged				

French (FR)

123A ELEMENTARY FRENCH					04.0	Cr ¹
2212	1	10.00	M W F	Faner	1030	Aydt
		10.00	Th	H Ec	203	
2213	2	10.00	MTW F	Faner	1228	Omeara
2214	3	11.00	MTWTh	Faner	1228	Kilker
2215	4	12.00	MTW F	Wham	321	Omeara
2216	5	01.00	M WThF	Faner	2073	Aydt
123B ELEMENTARY FRENCH					04.0	Cr ¹
Prereq: 123a						
2217	1	08.00	MTW F	Faner	2079	Gobert
201A INTERMEDIATE FRENCH					04.0	Cr ¹
Prereq: 123, or two yrs of high school French, or equivalent						
2218	1	11.00	MT ThF	Faner	2006	Southworth
2219	2	12.00	M WThF	Faner	2367	Aydt
220 INTERMED FR CONVER					02.0	Cr ¹
Prereq: Concurrent registration in 201 or consent of instr						
2220	1	02.00	T Th	Faner	2008	Southworth
288A FR AS RESEARCH TOOL					03.0	Cr
2221	1	08.00-09.15	T Th	Faner	2367	Kilker
310 FR LIT MID AGE-18 C					04.0	Cr ¹
2222	1	09.00	MT ThF	Faner	2006	
320 ADV LANGUAGE SKILLS					04.0	Cr ¹
2223	1	12.00	MTW F	Faner	2010	Gobert
330 INTRO-LIT ANALYSIS					03.0	Cr ¹
2224	1	01.00	M W F	Faner	2006	
430 BAROQUE & CLASSICIS					04.0	Cr ¹
2225	1	02.00	MTWTh	Faner	2006	
450 LIT MOVEMENT 19TH C					04.0	Cr ¹
2226	1	10.00	M W F	Pull	316	
		10.00	T	Wham	303	

490	INDEP STUDY IN FR	01.0 to 03.0 Cr
2227	1 To be arranged	
599	THESIS	01.0 to 06.0 Cr
2228	700 To be arranged	

Geography (GEOG)

202	CONTEMP WORLD GEOG	02.0 Cr
2236	1 11.00-12.50 M Faner 2533 Christensen D	
212	MAPS AND MAPPING	02.0 Cr
2237	1 09.00-10.50 M Faner 2522 Irwin D	
258	WORK EXPER IN GEOG	01.0 to 05.0 Cr ²
	Prereq: Geog major & consent of dept	
2238	700 To be arranged	
300	INTRO TO GEOGRAPHY	03.0 Cr
2239	1 02.00 M W F Faner 2533 Horsley	
302	PHYSICAL GEOGRAPHY	03.0 Cr ¹
	Prereq: 300 or consent	
2240	1 08.00 M W F Faner 2533 Dworkin	
310	INTRO CARTOGRAPHY	03.0 Cr ¹
	Prereq: 300 or consent	
2241	1 02.00-03.50 T Th Faner 2522 Irwin	
326	GEOG URBAN ENVIRON	03.0 Cr ¹
2242	1 01.00 M W F Faner 2533 Arey D	
332	OCEANOGRAPHY	03.0 Cr ¹
2243	1 11.00 M W F Faner 2522 Jones D	
404	SPATIAL ANALYSIS	03.0 Cr ¹
	Prereq: 300, 410 is advisable or consent of instructor	
2244	1 10.00 M W F Faner 2533 Lieber S	
410	TECHNIQUES IN GEOG	04.0 Cr ¹
	Prereq: 300 or consent	
2245	1 12.00-01.50 T Th Faner 2533 Lieber	
421	URBAN GEOGRAPHY	02.0 Cr ¹
	Prereq: 300 or consent	
2246	1 09.00-10.50 Th Faner 2533 Arey	
422	ECON IN GEOG & PLAN	04.0 Cr ¹
	Prereq: 300 or consent	
2247	1 03.00-04.50 M W Faner 2533 Beasley	
424	NAT RESOURCES PLAN	04.0 Cr ¹
	Prereq: 304 or consent	
2248	1 03.35-04.50 T Th Faner 2533 Baumann	
430	THEORY-ENVIRONMENT	03.0 Cr ¹
	Prereq: 302 or consent	
2249	1 09.00 M W F Faner 2533 Sharpe & Dworkin	
432B	HYDROLOGIC CLIMATOL	04.0 Cr ¹
	Prereq: 302 or 430 or consent	
2250	1 11.00-12.50 W F Faner 2533 Sharpe & Dworkin	
438	APPLIED METEOROLOGY	03.0 Cr ¹
	Prereq: GSA 330 or consent of instr	
2251	1 02.00-03.15 M W Faner 2522 Jones D	
470B	URBAN PLANNING	01.0 to 02.0 Cr ¹
	Prereq: Consent of department	
2252	700 To be arranged	
470C	URBAN PLANNING	02.0 to 04.0 Cr ¹
	Prereq: Consent of department	
2253	700 To be arranged	
471	REGIONAL PLANNING	03.0 Cr ¹
	Prereq: 300 or consent	
2254	1 06.00-07.25 pm T Th Faner 2533 Christensen	
487A	HONORS TUTORIAL	01.0 Cr ¹
	Prereq: Consent of dept	
2255	700 To be arranged	
487B	HONORS READINGS	02.0 Cr ¹
	Prereq: Consent of dept	
2256	700 To be arranged	
487C	HONORS SUPERV RES	03.0 Cr ¹
	Prereq: 487a or 487b and consent of department	
2257	700 To be arranged	

¹Elective Pass/Fail ²Mandatory Pass/Fail

490	READINGS IN GEOG	02.0 to 04.0 Cr ¹
	Prereq: Geog major,adv standing	
2258	700 To be arranged	
500	PRINCIPLES OF RES	03.0 Cr
	Prereq: Graduate admission	
2259	1 09.00-11.50 T Faner 2533 Beazley	
521	SEMINAR-ECON GEOG	02.0 to 04.0 Cr
	Prereq: Graduate standing	
2260	1 To be arranged	
524	SEM-CULTURAL GEOG	02.0 to 04.0 Cr
	Prereq: Graduate standing	
2261	1 To be arranged	
570	PLANNING INTERNSHIP	02.0 to 04.0 Cr
	Prereq: 470a or consent of department	
2262	700 To be arranged	
591	INDEPENDENT STUDIES	02.0 to 04.0 Cr
	Prereq: Graduate standing	
2263	700 To be arranged	
593A	RESEARCH-PHYS GEOG	02.0 to 06.0 Cr
	Prereq: 520	
2264	700 To be arranged	
593B	RESEARCH-ECON GEOG	02.0 to 06.0 Cr
	Prereq: 521	
2265	700 To be arranged	
593C	RESEARCH-REG GEOG	02.0 to 06.0 Cr
	Prereq: Graduate standing	
2266	700 To be arranged	
593D	RES-CULTURAL GEOG	02.0 to 06.0 Cr
	Prereq: 524	
2267	700 To be arranged	
596	FIELD COURSE	02.0 to 04.0 Cr
	Prereq: Graduate standing	
2268	1 To be arranged	
599	THESIS	02.0 to 06.0 Cr
	Prereq: Graduate standing	
2269	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
	Prereq: Graduate standing	
2270	700 To be arranged	

Geology (GEOL)

220	PHYSICAL GEOLOGY	03.0 Cr ¹
	Prereq: High school or college chem	
2310	1 09.00 T Th Park 308 Cole R	
	08.00-10.50 M Park 112	
2311	2 09.00 T Th Park 308 Cole R	
	09.00-11.50 F Park 112	
2312	3 09.00 T Th Park 308 Cole R	
	01.00-03.50 F Park 112	
2313	4 09.00 T Th Park 308 Cole R	
	01.00-03.50 W Park 112	
2314	5 09.00 T Th Park 308 Cole R	
	10.00-12.50 T Park 112	
221	HISTORICAL GEOLOGY	03.0 Cr ¹
	Prereq: 220; a biology course recommended	
2315	1 10.00 T Th Park 111 Fraunfelter G	
	01.00-03.50 W Park 205 Fraunfelter G	
302	FUND-STRUCT GEOLOGY	04.0 Cr ¹
	Prereq: 220, MATH 110-recommend PHYS 203,204 or 205 or conc	
2316	1 11.00 M W F Park 308 Zimmerman J	
	01.00-03.50 Th Park 112 Zimmerman J	
310	MINERALOGY	04.0 Cr ¹
	Prereq: 220, Chemistry 222	
2317	1 10.00 M W F Park 111 Hood W	
	01.00-03.50 T Park 103 Hood W	
330	GEOLOGY OF ILLINOIS	03.0 Cr ¹
2318	1 12.00 M F Park 205 Harris S	
	12.00-01.50 W Park 205	
415	OPTICAL MINERALOGY	03.0 Cr ¹
	Prereq: 310, PHYS 203b, 204b, or 205b	
2319	1 09.00 T Th Comm 8 Robinson P	
	02.00-04.50 Th Comm 10 Robinson P	
2320	2 09.00 T Th Comm 8 Robinson P	
	01.00-03.50 F Comm 10 Robinson P	

494D PRAC IN SCHOOL PSYC

03.0 Cr

Prereq: Consent of instructor

2373 1 To be arranged Amble B

502 BASIC STATISTICS

03.0 Cr

2374 1 12.35-01.50 T Th Wham 317 Leitner
 2375 2 01.00 M W F Wham 317
 2376 3 02.00-03.15 T Th Wham 317

506 INFERENTIAL STATIST

04.0 Cr

2377 1 08.00-09.50 M W Wham 312 Woehlke P
 2378 2 09.00-10.50 T Th Wham 201 Pohlmann J
 2379 3 10.00-11.50 W F Pull 208 Woehlke P
 2380 4 02.00-03.50 T Th Wham 328 Mouw J
 2381 5 05.00-06.50 T Th Wham 317 Mouw J

507 MULTIPLE REGRESSION

04.0 Cr

Prereq: 506

2382 1 08.00-09.50 W F Wham 301B Pohlmann J
 2383 2 02.00-03.50 T Th Wham 205 Miller W

511 INSTRUCTIONAL PSYC

03.0 Cr

Prereq: None. PSYC 407 or equivalent recommended

2384 1 12.35-01.50 T Th Wham 326 Snowman J

512 AFFECT, COG BEHAVIOR

03.0 Cr

2385 1 06.00-08.30 pm T Wham 205 Deichmann J

513 PSYC TRENDS IN EDUC

03.0 Cr

2386 1 06.00-08.30 pm W Wham 201 Karmos J

521 ANALY CLSRM BEHAV

03.0 Cr

2387 1 09.35-10.50 T Th Wham 212 Bardo H

530 STANDARIZED TESTNG

04.0 Cr

2388 1 06.30-09.50 pm W Wham 329 Cody J

532 INDIV INTELL THEORY

03.0 Cr

2389 1 09.00-10.50 W Faner 2512 Snowman J

533 INDIV MEAS & PRACT

04.0 Cr

Prereq: 494d, 532

2390 1 01.00-02.50 M W Wham 301A Amble B

537 COUNSELING CHILDREN

04.0 Cr

2391 1 05.00-08.30 M Wham 303 Altekruze M
 To be arranged

538 INTERPERS RELATIONS

04.0 Cr

2392 1 07.00-09.30 pm Th Wham 312 Wickersham B
 To be arranged

542 CAREER DEV PRO, PRAC

04.0 Cr

Prereq: 412

2393 1 06.00-09.30 pm T Wham 208 Bradley R

543 GRP THEORY & PRAC

03.0 Cr

2394 1 01.00-02.50 M W Wham 301B Wickersham B

555 SEMINAR-SCHOOL PSYC

03.0 Cr

Prereq: Consent of instructor

2395 1 To be arranged Amble B

562A HUM DEV, ED-CHLDHOOD

03.0 Cr

2396 1 02.00-03.15 T Th Wham 329

567 TOPICAL SEM-ED PSYC

02.0 to 06.0 Cr

Prereq: Consent of instr

2397 1 06.00-09.30 pm T Wham 301B Kelly J

568 TOP SEM-COUNS, GUID

01.0 to 06.0 Cr

2398 1 03.00-04.50 W Wham 301B Bradley R

2399 2 03.00-04.50 M Faner 2367 Altekruze M

580 DOC SEM-MEAS & STAT

03.0 Cr

Prereq: 507

2400 1 12.35-01.50 T Th Wham 301A Lewis E

2401 2 03.35-04.50 T Th Wham 303 Leitner D

592 INDEP STU & INVEST

01.0 to 06.0 Cr

Prereq: Consent of dept

2402 700 To be arranged

593 INDIVIDUAL RESEARCH

01.0 to 04.0 Cr

Prereq: Consent of dept

2403 700 To be arranged

594 ADVANCED PRACTICUM

01.0 to 06.0 Cr

2404 1 09.00-10.50 W Wham 212 Altekruze M

2405 2 11.00-12.50 Th Wham 212 Wickersham B

595 INTERN-PSYC OF TCH

04.0 Cr

Prereq: 512, 513, 518, 540, and consent of department

2406 1 To be arranged Karmos J

599 THESIS

01.0 to 06.0 Cr

Prereq: Consent of dept

2407 700 To be arranged

600 DISSERTATION

01.0 to 16.0 Cr

2408 700 To be arranged

Health Education (HED)

301 ADV CONCEPTS-HEALTH

03.0 Cr

2467 1 09.00 M W F Lingle 123 Vaughan A

302S DRIV & TRAF SAFE ED

03.0 Cr

Prereq: Valid drivers license

2468 1 09.00 M W F L-ApS 136 Depue L

305 PRINC & FOUND HED

03.0 Cr

2469 1 09.35-10.50 T Th Lingle 121 Harris E

311 HUMAN GROWTH & DEV

03.0 Cr

2470 1 11.00 M W F Lingle 121 Moglia

2471 2 12.35-01.50 T Th Lingle 121 Moglia R

312 EMOTIONAL HEALTH

03.0 Cr

2472 1 12.00 M W F Lingle 121 Harris E

2473 2 12.35-01.50 T Th Lingle 123 Casey S

313S INTRO SAFETY EDUC

03.0 Cr

2474 1 10.00 M W F L-ApS 136 Depue L

323S MET & MAT-SAFETY ED

03.0 Cr

2475 1 01.00 M W F L-ApS 136 Ritzel D

326 MEASURE, TEST & EVAL

02.0 Cr

2476 1 11.00 T Th Tech A 122 Casey R

330 CONSUMER HEALTH

03.0 Cr

2477 1 10.00 M W F Lingle 123 Harris E

334 STANDARD FIRST AID

02.0 to 03.0 Cr

2478 1 08.00 M W F Lingle 119

2479 2 08.00-09.15 T Th Lingle 119

2480 3 09.00 M W F Lingle 119

2481 4 09.35-10.50 T Th Lingle 119

2482 5 10.00 M W F Lingle 119

2483 6 11.00-12.15 T Th Lingle 119

2484 7 11.00 M W F Lingle 119

2485 8 12.00 M W F Lingle 119

2486 9 12.35-01.50 T Th Lingle 119

2487 10 01.00 M W F Lingle 119

2488 11 02.00 M W F Lingle 119

350 HED IN EL SCH CURR

03.0 Cr

2489 1 02.00 M W F Lingle 121 Moglia

355 INTRO-COMM HEALTH

03.0 Cr

2490 1 08.00-09.15 T Th Tech D 131 Bates

2491 2 02.00-03.15 T Th Lingle 123 Henderson

400 HLTH APP-SCHL CHLD

03.0 Cr

2492 1 06.30-09.00 pm W Lingle 121 Lefevre J

401 EPID APPR-DIS PREV

03.0 Cr

2493 1 01.00 M W F Lingle 123 Bates

2494 2 06.30-09.00 pm Th Lingle 121 Amadio J

405 SEX EDUCATION

03.0 Cr

2495 1 08.00 M W F Tech D 131 Moglia R

2496 2 09.00 M W F Lingle 121 Boydston D

407 DRUG EDUCATION

03.0 Cr

2497 1 11.00-12.15 T Th Lingle 121 Russell R

434 ADVANCED FIRST AID

03.0 Cr

2498 1 09.00 M W F L-ApS 135 Ritzel D

2499 2 10.00 M W F L-ApS 135 Dodd

442S DR/TRAF-SAF ED PRAC

05.0 Cr

Prereq: 302s

2500 1 08.00-09.50 M W F L-ApS 136 Ritzel D

443S DR/TRAF-SAF ED-ADMN

03.0 Cr

Prereq: 442s or consent of instr

2501 1 06.30-09.00 pm T L-ApS 136 Ritzel D

445A SPEC LAB-CYCLE SAFE

02.0 to 03.0 Cr

Prereq: 302 or consent of instructor

2502 1 02.00-04.00 T Th L-ApS 136

Additional hours TBA

445B SPEC LAB-EMER DRIV

02.0 to 03.0 Cr

Prereq: 302 or consent of instructor

2503 1 03.00 M W L-ApS 136 Lindauer L

Additional hours TBA

475S TRAF LAW ENFORCE,PL				03.0 Cr
Prereq: 302s or consent of instr				
2504	1	06.30-09.00 pm	W L-ApS	136 Lindauer L
483 COMM HLTH ADM-U.S.				03.0 Cr
2505	1	02.00-03.15	T Th Lingle	119 Brown A
488 ENVIR DIMEN OF HED				01.0 to 03.0 Cr
2506	1	To be arranged		
2507	2	11.00-12.15	T Th Lingle	123 Vaughan A
489 INTRO-VITAL STATIST				03.0 Cr
2508	1	06.30-09.00 pm	M Lingle	121 Casey R
490 FIELD EXPERIENCES				02.0 to 06.0 Cr
Prereq: Permission of the instr				
2509	700	To be arranged		
491 TCH/LEARN-SCHL,COMM				03.0 Cr
2510	1	09.35-10.50	T Th Lingle	123 Harris E
500 COMM ORGANIZ-H ED				04.0 Cr
2511	1	06.00-09.30 pm	T Lingle	123 Brown & Sliepceovich
510 CURRICULUM IN H ED				03.0 Cr
2512	1	06.30-09.00 pm	W Lingle	123 Russell R
515 REVIEW CURRENT LIT				03.0 Cr
2513	1	02.00-04.30	Th Lingle	126 Sliepceovich E
520 SPEC PROJECTS-H ED				01.0 to 03.0 Cr
2514	700	To be arranged		
526 EVAL APPROACH-H ED				03.0 Cr
2515	1	04.00-06.20	W Lingle	123 Brown A
533A HUMAN ECOLOGY I				04.0 Cr
2516	1	02.00-03.50	T Th Lingle	125 Russell R
2517	2	06.00-09.30 pm	T Tech A	122 Richardson C
536 PROF PREP IN H ED				03.0 Cr
2518	1	06.30-09.00 pm	M Lingle	123 Lefevre J
550S CUR DEV-TRAF,SAF ED				03.0 Cr
Prereq: Advanced grad stand & cons of instr				
2519	1	06.30-09.00 pm	M L-ApS	136 Aaron J
590 PRACTICUM-COMM HLTH				08.0 Cr
2520	1	To be arranged		
597A SEMINAR-HEALTH ED				01.0 Cr
2521	1	To be arranged		Boydston D
598A INSTI-WRIT RES PROP				01.5 Cr
2522	1	To be arranged		Sliepceovich & Aaron
599 THESIS				01.0 to 06.0 Cr
2523	700	To be arranged		
600 DISSERTATION				01.0 to 16.0 Cr
2524	700	To be arranged		

Higher Education (HIED)

399A PROB OF HIED IN U S				02.0 Cr ¹
2525	1	03.00	T Th Wham	319
399B PROB OF HIED IN U S				02.0 Cr ¹
2526	1	02.00	T Th Wham	312
402 PRIN STU PERS GP WK				02.0 Cr ¹
2527	1	To be arranged		
2528	2	06.30-08.20 pm	W Wham	203 Graham J
2529	3	06.30-08.20 pm	W Pull	215
501 INTRO-RESEARCH HIED				02.0 Cr
2530	1	06.30-08.30 pm	Th Wham	301A Spees & Dingerson
510 HIGHER EDUC IN U S				03.0 Cr
2531	1	03.35-04.50	T Th Wham	307 Hawley J
513 ORGAN & ADMIN-HIED				03.0 Cr
2532	1	12.35-01.50	T Th Wham	307 Keene R
515 STU DEV-OPER & POL				03.0 Cr
2533	1	11.00-12.15	T Th Wham	307 Graham J
516 COL STU & COL CULT				03.0 Cr
2534	1	09.35-10.50	T Th Wham	307 Casebeer A
2535	2	06.30-09.20 pm	W Tech A	122 Casebeer A

518 COLLEGE TEACHING				03.0 Cr
2536	1	02.00-03.15	T Th Wham	307 Morrill P
2537	2	06.30-09.20 pm	T Wham	307
525 PHILOSOPHY OF HIED				03.0 Cr
2538	1	06.30-09.20 pm	T Wham	301A
526 COMM-JUNIOR COLLEGE				03.0 Cr
2539	1	05.00-06.15	T Th Wham	307
528 FINANCE IN HIED				03.0 Cr
2540	1	05.00-06.15	M W Wham	307
535B SEM I-LAW & HIED				02.0 Cr
2541	1	03.00-04.50	M Wham	307
535D SEM I-ADMISS & REC				01.0 Cr
2542	201	03.00-04.50	Th Wham	312
Above section meets 8/25-10/6				
535G SEM I-ADULT,CONT ED				01.0 to 03.0 Cr
2543	201	06.30-08.20 pm	M Wham	307
Above sect meets 10/17-12/5				
535H SEM I-SOCIO OF HIED				01.0 Cr
2544	201	03.00-04.50	M Pull	35 Hawley J
Above sect meets 10/17-12/5				
535I SEM I-SELECTED TOP				01.0 to 06.0 Cr
2545	1	07.00-08.50 pm	T Wham	317 Jung L
Topic: Research Methodology- 2 Credits				
2546	201	01.00-02.50	F 0473	157 Graham J
Topic: Supv Mgt in?hied- meets 8/26-10/7 -for 1 Credit				
2547	202	01.00-02.50	M 0595	104
Topic: Collective Bargaining-meets 8/22-10/5-for 1 Cr				
2548	203	03.00-04.50	M Pull	35 Zimmerman & Graham
Topic: Residence Halls-meets 8/22-10/10-1 Credit				
2549	204	03.00-04.50	Th Wham	307 Pratt & Brown
Topic: The Technical Institute- meets 10/19-12/8-1 Cr				
545C SEM II-INSTITU RES				01.0 to 03.0 Cr
2550	1	07.00-08.50 pm	Th Cl	319 Jung
545E SEM II-PROB CEN ADM				02.0 Cr
2551	1	03.00-04.50	Th Wham	201 King J
545F SEM II-BUS,FIS AFF				02.0 Cr
2552	1	01.00-02.50	W Wham	307
550 SEMINAR III				01.0 to 04.0 Cr
Prereq: Doctoral students only				
2553	1	08.30-11.00	S 0595	104 King & Hawley
589 HIED RESEARCH SEM				01.0 to 04.0 Cr
Prereq: Consent of instructor				
2554	1	06.30-08.20 pm	W 0595	104 King & Swinburne
590 INDIVIDUAL READINGS				01.0 to 06.0 Cr
Prereq: Consent of instructor				
2555	700	To be arranged		
591 INDIVIDUAL STUDY				01.0 to 06.0 Cr
Prereq: Consent of instructor				
2556	700	To be arranged		
592 SPEC PROB (INDIVID)				01.0 to 06.0 Cr
Prereq: Consent of instructor				
2557	700	To be arranged		
595 INTERNSHIP IN HIED				01.0 to 06.0 Cr
Prereq: Consent of instructor				
2558	700	To be arranged		
599 THESIS				01.0 to 06.0 Cr
2559	700	To be arranged		
600 DISSERTATION				01.0 to 16.0 Cr
2560	700	To be arranged		
History (HIST)				
200 PROB-HIST WORLD CIV				03.0 Cr ¹
Prereq: Presidents scholars status or consent of instructor				
2571	1	06.00-08.50 pm	W Wham	205 Gold R
205 HIST-WEST CIVILIZAT				03.0 Cr ¹
2572	1	09.00	M W Th Faner	3314 Zucker S
2573	2	06.00-07.25 pm	M W Pull	41 Brehm D
313 IDEA W HIS PRE 1600				04.0 Cr ¹
2574	1	01.00-02.50	T Th Faner	3514 Vyverberg H

315	MEDIEVAL EUROPE			04.0 Cr ¹
2575	1 03.00-04.50	M W	Faner	1230 Brehm D
320	EARLY MODERN EUROPE			04.0 Cr ¹
2576	1 09.00-10.50	T Th	Wham	319 Dotson J
325	MODERN EUROPE			04.0 Cr ¹
2577	1 11.00-12.50	T Th	Park	309 Zucker
330A	ENG HIST TO 1688			03.0 Cr ¹
2578	1 08.00-09.15	T Th	Faner	1224 Vyverberg H
336	FASCIST DICTATORS			03.0 Cr
Prereq: Sophomore standing or consent of instructor				
2579	1 11.00-12.15	T Th	Wham	112 Detwiler D
337	CONTEM SOVIET MINOR			04.0 Cr ¹
2580	1 03.00-04.50	T Th	Faner	1028 Mcfarlin H
338	EASTERN EUROPE			03.0 Cr ¹
2581	1 11.00	M W F	H Ec	106 Oday E
354	THE U.S.SINCE 1945			03.0 Cr ¹
2582	1 01.00	M W F	Faner	1326 Batinski M
362A	BLK AM HIST TO 1865			03.0 Cr
2583	1 09.35-10.50	T Th	Faner	1026 Charles E
365	SOC WELFARE IN AMER			03.0 Cr
2584	1 04.00	M W F	H Ec	206 Batinski M
367	HISTORY-ILLINOIS			03.0 Cr
2585	1 12.00	M W F	H Ec	106 Allen H
370A	COLONIAL LATIN AMER			03.0 Cr ¹
2586	1 09.00	M W F	Wham	203 Werlich D
380A	HIST-CHINA & JAPAN			03.0 Cr
2587	1 10.00	M W F	Ag	116 Wu T-W
387A	HISTORY OF W.AFRICA			03.0 Cr ¹
2588	1 11.00-12.15	T Th	Faner	1026 Charles E
395	HONORS			03.0 Cr
Prereq: Junior standing and consent of department				
2589	1 06.00-08.50 pm	T	H Ec	122 Brehm D
418	RENAISSANCE			03.0 Cr ¹
2590	1 02.00-03.15	T Th	H Ec	106 Dotson J
424A	SOC,REV EUR-1815-71			03.0 Cr ¹
2591	1 02.00	M W Th	Faner	3314 Zucker S
425B	EUR-W WAR II,AFTER			03.0 Cr ¹
2592	1 01.00	M W F	Faner	1224 Oday E
433	HISTORY OF GERMANY			04.0 Cr ¹
2593	1 09.00	M W	Pull	118 Detwiler D
	09.00	T Th	Pull	208
437A	IMPERIAL RUSSIA			03.0 Cr ¹
2594	1 11.00-12.15	T Th	Pull	227 Mcfarlin H
452A	US HIST-CIV WAR ERA			03.0 Cr
2595	1 09.00	M W F	Ag	116 Simon J
460A	US SOC & INTEL HIST			03.0 Cr
2596	1 12.35-01.50	T Th	Wham	305 Fladeland B
464A	AM ECON HIS-TO 1869			03.0 Cr
2597	1 03.35-04.50	T Th	Faner	2205 Conrad D
465A	HIST OF OLD SOUTH			03.0 Cr
2598	1 02.00	M W F	Wham	305 Murphy J
466B	AM WEST SINCE 1850			03.0 Cr
2599	1 10.00	M W F	Faner	1224 Clifford J
472	THE CARIBBEAN AREA			03.0 Cr ¹
2600	1 01.00	M W F	H Ec	106 Gold R
480A	HIST-TRADIT CHINA			03.0 Cr ¹
2601	1 12.00	M W F	Faner	1030 Wu T-W
490	SPEC READINGS-HIST			01.0 to 04.0 Cr
Prereq: Registration by special permission only				
2602	700	To be arranged		
521	SEM-EARLY MOD EUR			04.0 Cr
2603	1 10.00-11.50	T Th	Faner	2204 Vyverberg H
553	SEM-20TH CEN US HIS			04.0 Cr
2604	1 06.00-07.50 pm	M W	Wham	301A Allen H
555	SEM-AMERICAN HIST			04.0 Cr
2605	1 03.00-04.50	M W	Faner	2204 Ammon H
570	SEM-LATIN AMER HIST			04.0 Cr
2606	1 02.00-03.50	M W	Faner	2061 Werlich D

¹Elective Pass/Fail ²Mandatory Pass/Fail

590	READINGS IN HISTORY	01.0 to 03.0 Cr
Prereq: Registration by special permission only		
2607	700	To be arranged
591	INDEP INVESTIGATION	02.0 to 05.0 Cr
Prereq: Doctoral standing & consent of graduate advisor		
2608	700	To be arranged
599	THESIS	01.0 to 06.0 Cr
2609	700	To be arranged
600	DISSERTATION	01.0 to 16.0 Cr
2610	700	To be arranged

Home Economics Education (HEED)

111	HOME ECON CAREERS	01.0 Cr
2611	1 04.00	M H Ec 133 Heisler A
306	HOME EC AS A PROF	01.0 Cr
2612	1 08.00	Th H Ec 104 Carter R
309	METH & CURRIC-H EC	04.0 Cr
Prereq: Basic professional block in EDUC, 8 semester hours		
2613	1 08.00	M W F H Ec 106 Keenan D
To be arranged		
One additional hour		
313	SPECIAL PROBLEMS	01.0 to 03.0 Cr
2614	700	To be arranged
371	FIELD EXPERIENCE	04.0 Cr
Prereq: 370		
2615	1	To be arranged
372	PRAC-FAMILY LIFE ED	02.0 Cr
2616	1	To be arranged
399	HOME EC-MEN(&WOMEN)	03.0 Cr
2617	1 01.00	M W F Pull I 14 Heisler A
2618	2 06.00-07.15 pm	T Th H Ec 203 Heisler A
421	DEMO & LAB TECH	02.0 Cr
2619	1 04.00-06.00	M H Ec 133 Keenan D
594	PRACTICUM-SUPERV	01.0 to 03.0 Cr
Prereq: 510 or EDAF 556 or consent of instructor		
2620	1	To be arranged Carter R

Human Resources (HUMR)

101	HUMAN NEEDS & RES	03.0 Cr
2621	1 03.35-04.50	T Th H Ec 122
258	WORK EXPERIENCE	01.0 to 30.0 Cr
2622	700	To be arranged
387	HUMR-SPECIAL PROBS	01.0 to 06.0 Cr
Prereq: Junior standing, GPA of 3.0 overall		
2623	1	To be arranged
388	RES & INVES-HONORS	01.0 to 06.0 Cr
Prereq: Junior standing, GPA of 3.0 overall		
2624	700	To be arranged

Industrial Technology (IT)

105	TECHNICAL DRAWING	02.0 Cr ¹
2625	1 08.00-09.50	T Th Tech A 207
307	ANALYT PROB IN TECH	03.0 Cr
Prereq: Math 111 or equivalent		
2626	1 03.00	M W F Tech A 308
309	INDUSTRIAL PROC I	04.0 Cr
2627	1 09.00	T Th Tech D 14B
	01.00-03.50	T Tech D 14B
	03.00-05.50	Th Tech D 14B
319	INDUST INTERNSHIP	02.0 to 30.0 Cr
Prereq: Consent of instructor		
2628	700	To be arranged
330	CURRENT MINING PROB	01.0 to 04.0 Cr
2629	1 06.00	pm M Tech D 130
358	MAT HAND & PLNT LAY	03.0 Cr
Prereq: 375		
2630	1 10.00	M W F Tech A 210
360	MINE PRODUCTION	03.0 Cr
Prereq: Appropriate background		
2631	1 07.00-09.50 pm	M Tech D 132

365 QUALITY CONTROL					03.0 Cr
2632	1	11.00	M W F	Tech D	132
369 INDUSTRIAL DESIGN					03.0 Cr
2633	1	12.00	M W	Tech A	310
		01.00-02.50	Th	Tech A	219
375 PROD & INVENT CONTR					03.0 Cr
2634	1	01.00	M W F	Tech D	132
382 MOTION & TIME STUDY					03.0 Cr
2635	1	02.00	M W F	Tech D	132
440 MANUFACTURE POLICY					03.0 Cr
Prereq: 358, 365, 375, 382, or consent of instructor					
2636	1	04.00	M W F	Tech D	130
465 INDUSTRIAL SAFETY					04.0 Cr
Prereq: Senior standing					
2637	1	08.00	MTWTh	Tech D	132
466 OCC SAFE,HLTH STAND					03.0 Cr
2638	1	09.00	M W F	Tech D	132
492 SPEC PROB IN INDUST					01.0 to 06.0 Cr
Prereq: Consent of instructor					
2639	700	To be arranged			

Interior Design (ID)

131 DES,HOME FURN & INT					04.0 Cr ¹
2640	1	10.00	MT ThF	H Ec	118
231 INTRO-INTERIOR DES					03.0 Cr
2641	1	09.00-11.50	T Th	H Ec	304A
2642	2	01.00-03.50	T Th	H Ec	304A Pulley
2643	3	06.00-09.00pm	T Th	H Ec	304
300 DISPLAY & EXHIB DES					02.0 Cr ¹
Prereq: 131 or 231 or cons of chairman					
2644	1	03.00-04.50	M W	H Ec	302
2645	2	04.00-05.50	T Th	H Ec	302
332B CONS MTH,MAT-SM COM					03.0 Cr
Prereq: 232 or consent of chairman					
2646	1	08.00-10.50	T F	H Ec	304
2647	2	01.00-03.50	T F	H Ec	304
381 INT DES THRU 19TH C					02.0 Cr
2648	1	03.00	W F	Lawson	121
383 DES & FAB OF FURN					02.0 Cr
Prereq: Arch 111 or consent of chairman					
2649	1	10.00-11.50	M W	H Ec	302
2650	2	01.00-02.50	M W	H Ec	302
390 DES PRESENT & DELIN					03.0 Cr
Prereq: 231 or consent of chairman					
2651	1	09.00-11.50	T Th	H Ec	302 Pulley
2652	2	01.00-03.50	T F	H Ec	302
391B INTER ID-REST&COMM					04.0 Cr
Prereq: 391a & ARCH 214 concurrently or consent of chairman					
2653	1	08.00-11.50	M Th	H Ec	304A
2654	2	01.00-04.50	M Th	H Ec	304
394 CONTR ID&PROF PRACT					03.0 Cr
Prereq: 391b or c or consent of chairman					
2655	1	12.00-01.50	T	H Ec	104
		12.00-01.50	W F	H Ec	304A
2656	2	03.00-04.50	W	H Ec	304
		03.00-04.50	F	H Ec	302
470 ID SEMINAR					03.0 Cr
Prereq: 8 hrs in interior design or consent of chairman					
2657	1	09.00	M W F	H Ec	304A
481 READINGS					01.0 to 04.0 Cr
Prereq: 28 hrs in interior design or consent of chairman					
2658	700	To be arranged			
492 SPECIAL PROBLEMS					01.0 to 05.0 Cr
Prereq: 18 hrs in interior design or consent of chairman					
2659	700	To be arranged			

Japanese (JAPN)

131A ELEMENTARY JAPANESE					04.0 Cr ¹
2660	1	09.00	M WThF	Faner	2365

201A INTERMED JAPANESE					05.0 Cr ¹
Prereq: 131b					
2661	1	12.00	MTWThF	Faner	2006 Ohtsu
306 INDIVID READ-JAPN					02.0 Cr
Prereq: 201b					
2662	1	To be arranged			

Journalism (JRNL)

300 MASS MEDIA MOD SOC					03.0 Cr
2665	1	03.00	M W F	Lawson	171
301 HIST OF JOURNALISM					03.0 Cr
2666	1	02.00	M W F	Lawson	201
305 MASS COMM THE & RES					03.0 Cr
2667	1	09.00	M W F	Comm	1244
310 WRITING-MASS MEDIA					03.0 Cr
Prereq: Typing speed of 30 words per minute					
2668	1	08.00	T Th	Lawson	201
		08.00-09.50	F	Comm	1248
2669	2	08.00	T Th	Lawson	201
		10.00-11.50	F	Comm	1248
2670	3	08.00	T Th	Lawson	201
		12.00-01.50	F	Comm	1248
2671	4	04.00	M W	Lawson	201
		08.00-09.50	Th	Comm	1248
2672	5	04.00	M W	Lawson	201
		10.00-11.50	Th	Comm	1248
2673	6	04.00	M W	Lawson	201
		12.00-01.50	Th	Comm	1248
311 RPT & NEWS WRITING					03.0 Cr
Prereq: 310					
2674	1	09.00	T Th	Lawson	231
To be arranged					
Three Additional Meeting Times					
312 EDITING AND MAKEUP					03.0 Cr
Prereq: 311					
2675	1	10.00	T Th	Lawson	231
To be arranged					
Additional 3 Hours Lab					
313 INTRO TO PHOTOJRNL					03.0 Cr
Prereq: Consent of department					
2676	1	01.00	T Th	Comm	1022
To be arranged					
Additional Lab Hours					
315 GRAPHIC COMM					03.0 Cr
2677	1	02.00	M W	Wham	203
		10.00-11.50	T	Comm	1250
2678	2	02.00	M W	Wham	203
		10.00-11.50	Th	Comm	1250
340 PUBLICITY METHODS					02.0 Cr
2679	1	10.00	T Th	Comm	1213
2680	2	01.00	T Th	Comm	1213
Non Maj Only Closed To Stu Who Have Passed JRNL 310					
341 PUBLIC RELATIONS					03.0 Cr
2681	1	03.00	M W F	Comm	1017
350 COMM-SUBURBAN JRNL					03.0 Cr
Prereq: 311					
2682	1	11.00	M W F	Comm	1244
360 MAGAZINE PROD & DES					03.0 Cr
2683	1	08.00	M W F	Comm	1250
362 MAG ARTICLE WRITING					03.0 Cr
Prereq: 311					
2684	1	10.00	M W F	Comm	1250
370 PRIN OF ADVERTISING					03.0 Cr
2685	1	12.00	M W F	Lawson	151
372 ADVER MEDIA & MGT					03.0 Cr
Prereq: 370, MKTG 304					
2686	1	09.00	M W F	Comm	1017
374 AD COPY,LAYOUT,PROD					04.0 Cr
Prereq: 372					
2687	1	11.00-12.50	M WTh	Comm	1213
376 AD CAMPAIGNS					03.0 Cr
Prereq: 374					
2688	1	02.00-03.50	T Th	Comm	1213

390 CRIT & PERSUAS WRIT						03.0 Cr
Prereq: 311						
2689	1	09.00	M W F	Comm	1018	
2690	2	10.00	M W F	Comm	1244	
391 FEATURE WRITING						03.0 Cr
Prereq: 311						
2691	1	09.00	M W F	Comm	1250	
2692	2	11.00	M W F	Comm	1250	
392 RPTG FOR ELEC MEDIA						03.0 Cr
Prereq: 310						
2693	1	01.00	W	Comm	1250	
		01.00-02.50	T	Comm	1250	
401 INTERNATIONAL COMM						03.0 Cr
2694	1	09.00-10.15	T Th	Comm	1244	
411 PUB AFFAIRS REPORT						03.0 Cr
Prereq: 311						
2695	1	11.00-12.15	T Th	Comm	1244	
442 LAW OF JOURNALISM						03.0 Cr
Prereq: Sr standing						
2696	1	01.00	M W F	Comm	1244	
Above Section Open to Grad Students Only						
2697	2	01.00	M W F	Comm	1018	
Above Section Open to Undergraduate Students Only						
479 SOCIAL ISSUES & ADV						02.0 Cr
Prereq: Sr standing						
2698	1	01.00	T Th	Comm	1018	
490 READINGS						01.0 to 02.0 Cr
Prereq: Written consent of instr and area head						
2699	700	To be arranged				
494 PRACTICUM						01.0 to 03.0 Cr
Prereq: Consent of instructor and area head						
2700	700	To be arranged				
495 PROSEMINAR						01.0 to 06.0 Cr
Prereq: Sr standing						
2701	1	03.00-05.30	M	Comm	1244	
Topic- Depth Reporting						
2702	2	06.30-09.00 pm	Th	Comm	1244	
Topic- Sports Reporting						
2703	3	06.30-09.00 pm	T	Comm	1244	
Topic- Communicator Press Responsibility						
500 RES MTH-MASS COMM I						03.0 Cr
2704	1	02.00	M W F	Comm	1244	
504 FOUND-MASS COMM THE						03.0 Cr
2705	1	06.30-09.00 pm	M	Comm	1244	
511 STUDIES-JRNL HIST						03.0 Cr
2706	1	02.00-04.30	T	Comm	1244	
550 TOPICAL SEMINAR						01.0 to 04.0 Cr
2707	1	03.00-04.15	T Th	Comm	1202C	
Topic- Public Opinion-3 Cr						
2708	2	06.30-09.00 pm	W	Comm	1244	
Topic- Mass Media & Social Institution-3 Cr						
2709	700	To be arranged				
592 INDIVIDUAL RESEARCH						01.0 to 02.0 Cr
2710	700	To be arranged				
599 THESIS						01.0 to 06.0 Cr
2711	700	To be arranged				
600 DISSERTATION						01.0 to 32.0 Cr
2712	700	To be arranged				

Latin (LATN)

133A ELEMENTARY LATIN						04.0 Cr ¹
2713	1	11.00	MT ThF	Faner	1030	Speck C
201A INTERMEDIATE LATIN						03.0 Cr ¹
Prereq: 133 or two years of high school Latin, or equivalent						
2714	1	09.00	M W F	Faner	2061	Speck C
288A LATIN AS A RES TOOL						03.0 Cr
2715	1	09.00	M	Faner	2073	Speck C
		09.00	W	Faner	2083	
		09.00	F	Faner	2079	
384 ROMAN PHILOSOPHY						03.0 Cr ¹
Prereq: 201 or equivalent						
2716	1	01.00	M W F	Faner	2061	Speck C

¹Elective Pass/Fail ²Mandatory Pass/Fail

Liberal Arts College (LAC)

105		LAW IN AMER SOCIETY				03.0 Cr ¹
2717	1	11.00	M W F	LSI	133	
258		WORK EXPERIENCE				01.0 to 30.0 Cr
2718	700	To be arranged				
Prior to Registration, Contact Dept Chairman						
300		INDIV INTERDIS READ				01.0 to 03.0 Cr ¹
Prereq: Advance approval by the dean						
2719	700	To be arranged				
301		INDIV INTERDIS RES				01.0 to 03.0 Cr ¹
Prereq: Advance approval by the dean						
2720	700	To be arranged				
302		IND INTERDIS FLD ST				01.0 to 03.0 Cr
Prereq: Advance approval by the dean						
2721	700	To be arranged				
303		INTERDISCIPLIN STU				01.0 to 03.0 Cr ¹
2722	700	To be arranged				
310		VALUE-LIFE,NORM,NAT				03.0 Cr ¹
2723	1	03.00	T Th	Faner	1136	
		07.00-10.00 pm	T	Lawson	161	
311		VALUES IN COMM ARTS				03.0 Cr ¹
2724	1	01.00	T Th	H Ec	206	
		07.00-10.00 pm	W	Lawson	161	
312		APPL VALUES-SOCIETY				03.0 Cr ¹
2725	1	02.00	T Th	H Ec	206	
		07.00-10.00 pm	Th	Lawson	161	

Linguistics (LING)

100A ORAL ENG-FOR STU						03.0 Cr
2728	1	10.00	M W F	Faner	3512	Perkins A
		10.00	T Th	Faner	3412	
2729	2	10.00	MTWThF	Faner	2205	Perkins A
Restricted to Linguistics majors only						
101 ENG COMP-FORGN STU						03.0 Cr
2730	1	08.00	M W F	Faner	3512	Redden J
2731	2	08.00	M W F	Faner	1030	Redden J
2732	3	08.00	M W F	Faner	2010	Redden J
102 EXPOS WRI-FORGN STU						02.0 Cr
Prereq: 101 or equivalent						
2733	1	08.00	T Th	Faner	3512	Redden J
2734	2	04.00	T Th	Faner	3514	Redden J
103 TECH WRIT-FORGN STU						02.0 Cr
Prereq: 101 or equivalent						
2735	1	08.00	T Th	Faner	3514	Redden J
2736	2	04.00	T Th	Faner	3512	Redden J
210G ELEM VIETNAMESE						05.0 Cr
2737	1	10.00	MTWThF	Faner	3113	Nguyen
290 AD ENG COMP-FOR STU						03.0 Cr ¹
Prereq: 101 and either 102 or 103 or graduate status						
2738	1	08.00	M W F	Faner	2406	Redden J
320 INTERCULTURAL COMM						03.0 Cr
Prereq: GSD 152 or SPCH 262 or consent of instructor						
2739	1	03.35-04.50	T Th	Comm	1017	Lanigan R
Cross-listed with Speech 320						
401 GENERAL LINGUISTICS						04.0 Cr ¹
2740	1	11.00	MTWTh	Park	111	Silverstein R
2741	2	01.00	MTWTh	Tech A	408	Konneker B
402A PHONETICS						03.0 Cr ¹
2742	1	03.00	M W	Faner	1136	Silverstein R
		03.00	Th	Faner	2463	
2743	2	03.00	M W	Faner	1136	Silverstein R
		03.00	F	Wham	321	
430 GRAMMATICAL STRUCT						03.0 Cr ¹
Prereq: One previous course in LING or consent of dept						
2744	1	02.00	M W F	Faner	2367	Nguyen D
440 TOPICS IN LING						01.0 to 03.0 Cr ¹
Prereq: One previous course in LING or consent of department						
2745	1	02.00-03.15	T Th	Faner	1224	Oller J
Topic- Intro to Psycholinguistics						
2746	2	02.00	M W F	Faner	1224	Konneker B
Topic- Sexism & Language						

453	TCH ENG-SECOND LANG	04.0 Cr ¹
2747	1 09.00 MTWTh Wham 301A Nguyen D	
454	OBSERV,PRAC IN TESL	02.0 Cr ²
2748	1 10.00 T Th Faner 3512 Perkins A	
497	READINGS IN LING	01.0 to 08.0 Cr
Prereq: Consent of dept and undergrad status		
2749	700 To be arranged	
504	DIALECTOLOGY	03.0 Cr
Prereq: One previous course in LING or consent of department		
2750	1 03.00 M W F Faner 3512 Gilbert G	
550	SEMINAR IN LING	04.0 Cr
Prereq: 405 or 408		
2751	1 10.00-11.50 T Th Faner 2061 Carrell D	
570	THEO & METH-EFL/ESL	03.0 Cr
2752	1 09.00 M W F Faner 1224 Perkins A	
2753	2 10.00 M W F Faner 1026 Parish C	
575	EFL/ESL TESTING	02.0 Cr
Prereq: 570 or consent of department		
2754	1 01.00 T Th Faner 2206 Oller J	
581	PRAC-EFL/ESL-ORAL	02.0 Cr
Prereq: Consent of department		
2755	1 10.00 MTWThF Faner 3514 Perkins A	
585	PRAC-EFL/ESL-WRITTN	02.0 Cr
Prereq: Consent of department		
2756	1 08.00 MTWThF Faner 2365 Redden J	
597	READINGS IN LING	01.0 to 08.0 Cr
Prereq: Consent of department		
2757	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
Prereq: Consent of department		
2758	700 To be arranged	

Marketing (MKTG)

304	MARKETING MANAGEMNT	03.0 Cr
Prereq: One course in ACCT & one crse in Economics		
2759	1 11.00 M W F Pull 215 Moore J	
2760	2 02.00 M W F Lawson 151 Moore J	
305	BEHAV&SOC ASPC-MKTG	03.0 Cr
Prereq: Junior standing or higher, or consent of department		
2761	1 10.00 M W F Park 124 Perry D	
2762	2 01.00 M W F Lawson 151 Perry D	
329	MARKETING CHANNELS	03.0 Cr
Prereq: 304, jr stand or higher, or consent of department		
2763	1 08.00 M W F Wham 303	
2764	2 08.00-09.15 T Th Cl 328	
2765	3 02.00 M W F Wham 321	
341	TRANSPORTATION	03.0 Cr
Prereq: 304, jr stand or higher, or consent of department		
2766	1 08.00-09.15 T Th Wham 307 Fugate D	
363	PROMOTIONAL CONCEPT	03.0 Cr
Prereq: 304		
2767	1 09.00 M W F Cl 109 Hindersman C	
2768	2 09.35-10.50 T Th Cl 109 Dommermuth W	
2769	3 11.00 M W F Cl 109 Hindersman C	
2770	4 02.00-03.15 T Th Cl 109 Dommermuth W	
390	MKTG RES & ANALYSIS	03.0 Cr
Prereq: 304 and ADSC 208, jr stand or higher, or cons dept		
2771	1 10.00 M W F Cl 109 Eckrich D	
2772	2 01.00 M W F Cl 109 Eckrich D	
401	RETAIL MANAGEMENT	03.0 Cr
Prereq: 304, jr stand or higher, or consent of department		
2773	1 09.00 M W F Wham 319 Adams K	
2774	2 11.00 M W F Wham 303 Adams K	
438	SALES MANAGEMENT	03.0 Cr
Prereq: 304, jr stand or higher, or consent of department		
2775	1 11.00-12.15 T Th Wham 326 Fugate D	
2776	2 02.00-03.15 T Th Ag 150 Fugate D	
439	INDUSTRIAL MKTG	03.0 Cr
Prereq: 304, jr stand or higher, or consent of department		
2777	1 03.00 M W F Cl 109 Adams K	

463	ADVERTISING MGT	03.0 Cr
Prereq: 304, jr stand or higher, or consent of department		
2778	1 02.00 M W F Cl 328 Hindersman C	
493	MARKETING POLICIES	03.0 Cr
Prereq: 329,363,390, only one concur; jr stand or cons dept		
2779	1 02.00-03.15 T Th Wham 208 Anderson R	
499	MARKETING INSIGHTS	01.0 to 03.0 Cr
Prereq: Approval of dept chairman in semester prior to enrl		
2780	700 To be arranged	

Mathematics (MATH)

101	MATH REVIEW-PRE-LAW	01.0 Cr ²
2827	201 03.00 T Th Nkrs C 218	
Above sect meets 8/22-10/12		
110A	COL ALGEBRA & TRIG	03.0 Cr ¹
Prereq: GSD 107 or 1 1/2 yrs of high school algebra or equi		
2828	1 08.00 M W F Nkrs C 116	
2829	2 09.00 M W F Ag 144	
2830	3 10.00 M W F Nkrs C 218	
2831	4 11.00 M W F Tech A 322	
2832	5 12.00 M W F Tech A 408	
2833	6 12.00 M W F Tech A 322	
2834	7 01.00 M W F Tech A 420	
2835	8 01.00 M W F Tech D 131	
2836	9 02.00 M W F Tech A 210	
2837	10 03.00 M W F Tech A 408	
2838	11 04.00 M W F Nkrs C 116	
2839	12 06.00-07.25 pm T Th Nkrs C 218	
110B	COL ALGEBRA & TRIG	02.0 Cr ¹
Prereq: 110a or two or more yrs high sch algebra & no trig		
2840	1 08.00 T Th Nkrs A 156	
2841	2 08.00 T Th Tech A 310	
2842	3 11.00 T Th Nkrs C 116	
2843	4 12.00 T Th Tech A 120	
2844	5 03.00 T Th Tech A 120	
111	COL ALGEBRA & TRIG	05.0 Cr ¹
Prereq: GSD 107 or 1 1/2 yrs high schl algebra, or equiv		
2845	1 08.00 MTWThF Nkrs C 118	
2846	2 09.00 MTWThF Tech A 422	
2847	3 10.00 MTWThF Tech A 410	
2848	4 11.00 MTWThF Tech A 422	
2849	5 12.00 MTWThF Tech A 410	
2850	6 02.00 MTWThF Nkrs C 118	
2851	7 03.00 MTWThF Tech A 410	
2852	8 03.00 MTWThF Nkrs A 156	
2853	9 06.00-07.25 pm M WTh Tech A 408	
2854	10 06.00-07.25 pm M WTh Tech A 120	
116	FIN MATH & ALGEBRA	05.0 Cr
Prereq: One year of high school algebra or GSD 106		
2855	1 08.00 MTWThF Tech A 410	
2856	2 09.00 MTWThF Tech A 410	
2857	3 10.00 MTWThF Pull 211	
2858	4 11.00 MTWThF Tech A 410	
2859	5 02.00 MTWThF Tech A 410	
2860	6 03.00 MTWThF Tech A 322	
2861	7 06.00-07.25 pm M WTh Nkrs C 116	
117	FIN MATH & CALCULUS	05.0 Cr
Prereq: 116		
2862	1 10.00 MTWThF Tech A 408	
2863	2 11.00 MTWThF Tech A 308	
2864	3 03.00 MTWThF Tech A 420	
139	FINITE MATH	03.0 Cr
Prereq: GSD 107 or 1 1/2 years of high school algebra		
2865	1 08.00 M W F Ag 116	
2866	2 09.00 M W F Tech A 408	
2867	3 10.00 M W F Nkrs A 156	
2868	4 11.00 M W F Nkrs C 116	
2869	5 12.00 M W F Tech A 210	
2870	6 01.00 M W F Tech A 410	
2871	7 01.00 M W F Tech A 320	
2872	8 03.00 M W F Tech D 131	
2873	9 04.00 M W F Tech A 210	
2874	10 06.00-07.15 pm M W Nkrs C 118	
140	SHORT CRSE CALCULUS	04.0 Cr
Prereq: GSD 107 or 1 1/2 years of high school algebra		
2875	1 08.00 T WThF Nkrs C 218	
2876	2 09.00 MT ThF Tech A 420	
2877	3 10.00 MTWTh Faner 1028	
2878	4 11.00 MT ThF Tech A 320	

2879	5	12.00	TWThF	Tech A	320
2880	6	03.00	M WThF	Ag	168
2881	7	03.00	MTWTh	Nkrs C	116
2882	8	05.45-07.25	T Th	Nkrs C	118

150 CALCULUS I

Prereq: 111 or equivalent

2883	1	08.00	TWThF	Tech A	408
2884	2	09.00	MTWTh	Nkrs C	118
2885	3	09.00	T Th	Nkrs A	156
		09.00	M W	Tech D	131
2886	4	10.00	MTWTh	Tech A	420
2887	5	11.00	TWThF	Nkrs C	118
2888	6	12.00	MTWTh	Nkrs A	156
2889	7	02.00	M WThF	Tech D	131
2890	8	03.00	MTW F	Nkrs C	118
2891	9	05.45-07.25	M W	Tech A	310

151 CALCULUS I WITH ALG

Prereq: 3yr HS math(2 alg&1/3 trig),50 plus ACT, or dep cons

2892	1	09.00	MTWThF	Ag	220
2893	2	02.00	MTWThF	Nkrs C	116

159 HONORS CALCULUS I

Prereq: Consent of department

2894	1	12.00	M W	Pull	35
		12.00	T Th	Tech A	122

221 INTRO LINEAR ALGEBR

Prereq: 150

2895	1	10.00	M W F	Tech D	131
2896	2	01.00	M W F	Tech A	422
2897	3	04.00	M W F	Nkrs A	156

250 CALCULUS II

Prereq: 150

2898	1	08.00	MT ThF	Tech A	422
2899	2	09.00	MT Th	Tech A	322
		09.00	F	Tech D	131
2900	3	10.00	TWThF	Nkrs C	118
2901	4	11.00	MTWTh	Ag	144
2902	5	02.00	MTW F	Tech A	310
2903	6	03.00	MTW F	Ag	216

251 CALCULUS III

Prereq: 250

2904	1	09.00	M W F	Nkrs A	156
2905	2	01.00	M W F	Ag	144
2906	3	03.00	M W F	Nkrs C	218

258 WORK EXPERIENCE

Prereq: Consent of Mathematics department

2907	1	To be arranged			
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282 INTRO TO STATISTICS

Prereq: 3 semester hrs of college math beyond G.S. math

2908	1	01.00	M W F	Ag	216
2909	2	02.00	M W F	Faner	1030

283 INTRO APPLIED STAT

Prereq: 140 or equivalent

2910	1	11.00	M W F	Ag	166
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301 DISCRETE STRUCTURES

Prereq: 111 & CS 202 or consent of either department

2911	1	10.00	M W F	Nkrs C	116
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Above section crosslisted with CS 342

305 ORD DIFF EQUA I

Prereq: 250

2912	1	08.00	M W F	Nkrs A	156
2913	2	12.00	M W F	Tech A	120
2914	3	01.00	M W F	Tech A	210

308 MATH FOR EL TCH I

Prereq: 3 hours of college mathematics

2915	1	09.00	M W F	Wham	210
2916	2	11.00	M W F	Ag	152
2917	3	01.00	M W F	Tech A	322

311 TEACH OF SEC MATH

Prereq: 319,319e,and 335

2918	1	10.00	M W F	Faner	1032
		09.00-10.50	T	Tech A	320
2919	2	10.00	M W F	Faner	1032
		09.00-10.50	Th	Tech A	320

04.0 Cr¹

05.0 Cr

04.0 Cr

03.0 Cr¹

04.0 Cr¹

03.0 Cr¹

01.0 to 12.0 Cr²

03.0 Cr¹

03.0 Cr¹

03.0 Cr

03.0 Cr¹

03.0 Cr

04.0 Cr

319 ABSTRACT ALGEBRA					03.0 Cr ¹
Prereq: 250;plus for s.ed maj,concur enrl in 319e					
2920	1	01.00	M W F	Nkrs A	156
352 INTRO TO ANALYSIS					03.0 Cr ¹
Prereq: 250;plus for s.ed maj,concur enrl in 352e					
2921	1	02.00	M W F	Nkrs A	156
352E ANALYSIS-SEC SCHLS					01.0 Cr ¹
Prereq: Concurrent enrollment in 352					
2922	1	02.00	T Th	Tech A	208
361 NUMERICAL CALCULUS					03.0 Cr
Prereq: CS 202 and MATH 150					
2923	1	03.00	M W F	Tech A	422
Above section crosslisted with CS 361					
395 READINGS IN MATH					01.0 to 06.0 Cr
Prereq: 4.0 GPA in MATH and consent of chairman					
2924	700	To be arranged			
406 EIGEN METH-APP MATH					03.0 Cr ¹
Prereq: 221 and 305					
2925	1	12.00	M W F	Tech A	122
421 LINEAR ALGEBRA					03.0 Cr ¹
Prereq: 221					
2926	1	11.00	M W F	Nkrs A	278
425 THEORY OF NUMBERS					03.0 Cr ¹
Prereq: 319 or 325 or consent of department					
2927	1	04.00	M W F	Nkrs A	278
435 ELEM DIFFER GEOM					03.0 Cr ¹
Prereq: 251 and 221					
2928	1	02.00	M W F	Tech A	322
445 APPL BOOLEAN ALGBRA					03.0 Cr
Prereq: 301 or CS 342 or both Math 319 and CS 202					
2929	1	12.00	M W F	Nkrs C	116
Above section crosslisted with CS 445					
449 COMBIN & GRAPH THEO					03.0 Cr
Prereq: 301 or consent of mathematics department					
2930	1	09.00	M W F	Tech A	210
Above section crosslisted with CS 449					
452 ADVANCED CALCULUS					04.0 Cr ¹
Prereq: 352 or consent of department					
2931	1	09.00	M WThF	Tech A	122
457 METH QUANT ANALYSIS					05.0 Cr
Prereq: Enrollment in MBA program or consent of instructor					
2932	1	09.00	MTWThF	Nkrs C	116
Above section crosslisted with BA 451					
475A NUMERICAL ANALYSIS					03.0 Cr
Prereq: 221,250, Computer Science 202					
2933	1	03.00	M W F	Faner	1026
Above section crosslisted with CS 464a					
480 INTRO-PROBABILITY					04.0 Cr ¹
Prereq: 250					
2934	1	10.00	M F	Ag	220
		10.00	T Th	Ag	168
483 INTRO TO MATH STAT					03.0 Cr ¹
Prereq: 250					
2935	1	01.00	M W F	Nkrs A	278
495 SPECIAL TOPICS-MATH					01.0 to 06.0 Cr ¹
Prereq: Consent of chairman & instr					
2936	700	To be arranged			
510 MATHEMATICAL LOGIC					03.0 Cr
Prereq: 426					
2937	1	11.00	M W F	Ag	218
514 GENERAL STAT ANALY					04.0 Cr
Prereq: 111					
2938	1	10.00	M W F	Tech A	422
		10.00	T	Faner	2006
		11.00	W	Tech A	408
520 ALGEBRAIC STRUCTURE					03.0 Cr
Prereq: 419					
2939	1	01.00	M W F	Nkrs C	410
Above section crosslisted with CS 555					
529 THEOR-COMPUTABILITY					03.0 Cr
Prereq: 451					
2940	1	12.00	M W F	Tech A	308
Above section crosslisted with CS 555					

¹Elective Pass/Fail ²Mandatory Pass/Fail

531	ALGEBRAIC TOPOLOGY	03.0	Cr
Prereq: 419, 433, or 530			
2941	1 02.00 M W F Tech A	308	
550H	SEMINAR-APPLI MATH	03.0	Cr
Prereq: Consent of instructor			
2942	1 02.00-03.15 T Th Nkrs C	410	
550K	SEM-MASTER OF SCI	01.0 to 03.0	Cr
Prereq: Consent of instructor			
2943	1 11.00 T Faner	2367	
560	CALCULUS-VARIATIONS	03.0	Cr
Prereq: 452			
2944	1 09.00 M W F Nkrs C	410	
567A	ECONOMETRICS I & II	03.0	Cr
Prereq: 417 or 421 and 483 or 514			
2945	1 11.00-12.15 T Th Faner	4135	
Above section crosslisted with ECON 567a			
582A	ADV TOP-PROBABILITY	03.0	Cr
Prereq: 581			
2946	1 08.00-09.15 T Th Faner	1004	Kirk R
595A	SPEC PROJ-ALGEBRA	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2947	700 To be arranged		
595B	SPEC PROJ-GEOMETRY	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2948	700 To be arranged		
595C	SPEC PROJ-ANALYSIS	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2949	700 To be arranged		
595D	SPEC PROJ-PROB,STAT	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2950	700 To be arranged		
595E	SPEC PROJ-MATH ED	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2951	700 To be arranged		
595F	LOGIC & FOUNDATIONS	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2952	700 To be arranged		
595G	SPEC PROJ-TOPOLOGY	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2953	700 To be arranged		
595H	SPEC PROJ-APPL MATH	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2954	700 To be arranged		
595I	SPEC PROJ-DIF EQUAT	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2955	700 To be arranged		
595J	SPEC PROJ-NUM THEO	01.0 to 06.0	Cr
Prereq: Consent of instructor			
2956	700 To be arranged		
599	THESIS	01.0 to 06.0	Cr
2957	700 To be arranged		
600	DISSERTATION	01.0 to 30.0	Cr
2958	700 To be arranged		

Medical Education Preparation (MEDP)

400A	MEDP SEM-ORIENTAT	01.0	Cr
Prereq: Restricted to MEDPREP students			
2959	1 To be arranged	Rainey	
400B	MEDP SEM-MED SEM	01.0	Cr
Prereq: 400a			
2960	1 To be arranged	Rainey	
401A	BASIC TUT-LEARN SKL	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2961	1 To be arranged	Baker J	
401B	BASIC TUT-SCI PROC	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2962	1 To be arranged	Pohlmann	
401C	BASIC TUT-QUAN SKIL	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2963	1 To be arranged	Venable	

401D	TUTOR-PERCEP MOT SK	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2964	1 To be arranged		
401E	BASIC TUT-INTERPERS	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2965	1 To be arranged		
401F	BASIC TUT-READ SKIL	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2966	1 To be arranged	Walsh	
401G	BASIC TUT-WRIT COMM	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2967	1 To be arranged		
401H	BASIC TUT-VOCABULAR	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2968	1 To be arranged		
401I	BASIC TUT-SPEED RD	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2969	1 To be arranged	Walsh	
401J	MEDP BASIC TUTORIAL	01.0 to 02.0	Cr ¹
Prereq: Restricted to MEDPREP students			
2970	1 To be arranged		
402A	SP PROB-MCAAP/DAT	01.0 to 02.0	Cr
Prereq: Restricted to MEDPREP students			
2971	1 03.00 Th Whlr	107	
402B	SP PROB-JRNL CLUB	01.0 to 02.0	Cr
Prereq: Restricted to MEDPREP students			
2972	1 04.00 Th Whlr	107	
402C	SP PROB-CLINICAL EX	01.0 to 02.0	Cr
Prereq: Restricted to MEDPREP students			
2973	700 To be arranged		
402D	SP PROB-INDEP RES	01.0 to 02.0	Cr
Prereq: Restricted to MEDPREP students			
2974	700 To be arranged		
402E	SP PROB-INDEP READ	01.0 to 02.0	Cr
Prereq: Restricted to MEDPREP students			
2975	700 To be arranged		
402F	SPECIAL PROBLEMS	01.0 to 02.0	Cr
Prereq: Restricted to MEDPREP students			
2976	700 To be arranged		
403A	MEDP BIOL TUT-GENET	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students or consent of instr			
2977	1 To be arranged	George	
403B	MEDP BIOL TUT-ANATO	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students or consent of instr			
2978	1 To be arranged		
403C	MEDP BIOL TUT-PHSL	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students or consent of instr			
2979	1 To be arranged	Bemiller	
403D	MEDP BIO TUT-EMBRYO	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students or consent of instr			
2980	1 To be arranged	Bemiller	
403E	MEDP BIOL TUT-MICRO	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students or consent of instr			
2981	1 To be arranged		
403F	MEDP BIOL TUT-ZOOL	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students or consent of instr			
2982	1 To be arranged		
403G	MEDP BIO TUT-SPEC	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students or consent of instr			
2983	1 To be arranged		
404A	MEDP CHEM TUT-INORG	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students			
2984	1 To be arranged		
404B	MEDP CHEM TUT-INORG	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students			
2985	1 To be arranged		
404C	MEDP CHEM TUT-ORGAN	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students			
2986	1 To be arranged	Bynum	
404D	MEDP CHEM TUT-ORGAN	01.0 to 02.0	Cr
Prereq: Restricted to MEDP students			
2987	1 To be arranged	Bynum	

404E MEDP CHEM TUT-BIOCH				01.0 to 02.0 Cr		MICR 67	
Prereq: Restricted to MEDP students							
2988	1	To be arranged		Bynum			
404F MEDP CHEM TUTORIAL				01.0 to 02.0 Cr		504 METH-MICRO RESEARCH 03.0 Cr	
Prereq: Restricted to MEDP students						3013 700 To be arranged	
2989	1	To be arranged				505 SPEC TOPICS IN MICR 01.0 Cr	
405A MEDP PHYS TUTORIAL				01.0 to 02.0 Cr		Prereq: Consent of instr	
Prereq: Restricted to MEDP students						3014 700 To be arranged	
2990	1	To be arranged		Venable		511 RESEARCH 01.0 to 07.0 Cr	
405B MEDP PHYS TUTORIAL				01.0 to 02.0 Cr		Prereq: Consent of instructor	
Prereq: Restricted to MEDP students						3015 700 To be arranged	
2991	1	To be arranged		Venable		528 READINGS IN MICR 01.0 to 03.0 Cr	
						Prereq: Consent of instructor	
						3016 700 To be arranged	
						551 ADVANCED IMMUNOLOGY 03.0 Cr	
						Prereq: 451 & 452, or equivalent, or consent of instructor	
						3017 1 To be arranged Jackson R	
						564 BACTERIAL SEXUALITY 02.0 Cr	
						Prereq: 460,or 302 & micr gen or mol bio;& BIOL 305;or cons	
						3018 1 10.00 T Th Tech A 122 Caster J	
						599 THESIS 01.0 to 03.0 Cr	
						Prereq: Consent of instructor	
						3019 700 To be arranged	
						600 DISSERTATION 01.0 to 12.0 Cr	
						Prereq: Consent of instructor	
						3020 700 To be arranged	

225A EMBALM THE & PRACT						04.5 Cr
3037	1 08.00	M W F	L3	109	Poston	
	09.00-11.50	T	L3	106		
3038	2 08.00	M W F	L3	109	Poston	
	09.00-11.50	Th	L3	106		
3039	3 02.00	M W F	L3	109	Poston	
	02.00-04.50	T	L3	106		
3040	4 02.00	M W F	L3	109	Poston	
	02.00-04.50	Th	L3	106		
230 MORTUARY ANATOMY						04.0 Cr
3041	1 08.00	T	L3	109	Mayne	
	10.00	M W F	L3	109		
3042	2 11.00	MTW F	L3	109	Mayne	
250A MORTUARY MANAGEMENT						03.0 Cr
3043	1 09.00	M W F	L3	109	Hertz	
3044	2 09.00-10.50	T	L3	109	Hertz	
	08.00	Th	L3	109		
256 INTRODUCTORY MICRO						04.5 Cr
3045	1 01.00	M W F	L3	109	Hertz	
	09.00-11.50	Th	F3	144		

Music (MUS)

011 MARCHING SALUKIS						01.0 to 02.0 Cr
3061	1 03.15-04.45	T Th F	Altg	114	Hanes	
	07.00-09.00 pm	M	Altg	114		
013 SYMPHONIC BAND						01.0 to 02.0 Cr
3062	1 02.00	M W F	Altg	114	Koenigstein	
014 CONCERT WIND ENSEMB						01.0 to 02.0 Cr
Prereq: Audition prior to first registration						
3063	1 03.00-04.30	M W	Altg	114	Siener	
015 JAZZ ENSEMBLE						01.0 Cr
Prereq: Audition prior to first registration						
3064	1 01.00	M W F	Altg	114	Valk A	
3065	2 01.00	T Th	Altg	114	Valk A	
016 BRASS & PERCUSSION						01.0 Cr
Prereq: Audition prior to first registration						
3066	1 02.00	T Th	Altg	114	Siener	
017 SYMPHONY						01.0 to 02.0 Cr
Prereq: Audition prior to first registration						
3067	1 07.00-09.45 pm	T Th	Altg	114	Bergt R	
020 UNIVERSITY CHORUS						01.0 to 02.0 Cr
3068	1 07.30-09.45 pm	M	H Ec	140B	Kingsbury R	
Class also meets in ALTG 115,116						
021 SIU CHORALE						01.0 to 02.0 Cr
3069	1 12.00	MTW F	H Ec	140B	Pressley D	
022 UNIVERSITY CHOIR						01.0 to 02.0 Cr
Prereq: Audition prior to first reg and each succeeding fall						
3070	1 03.00-04.30	M W	Altg	115	Kingsbury R	
023 SOUTHERN SINGERS						01.0 Cr
3071	1 01.00-02.30	T Th	Altg	115	Kingsbury R	
024 MALE GLEE CLUB						01.0 Cr
3072	1 06.00-07.30 pm	T Th	Altg	115	Kingsbury R	
025 WMN CHORAL ENSEMBLE						01.0 Cr
3073	1 01.00	T Th	Altg	248	Taylor C	
030A PIANO CLASS-LEVEL 1						01.0 Cr
Prereq: Maj or min in MUS, ELED, early child, or instr cons						
3074	1 10.00	T Th	0555	201		
3075	2 11.00	T Th	0555	201		
3076	3 12.00	M W	0555	201		
3077	4 02.00	M W	0555	201		
Restr to non-music majors and minors						
030B PIANO CLASS-LEVEL 2						01.0 Cr
Prereq: 030a or advanced placement by instructor						
3078	1 01.00	M W	0555	201		
030C PIANO CLASS-LEVEL 3						01.0 Cr
Prereq: 030b or advanced placement by instructor						
3079	1 09.00	M W	0555	201		
030D PIANO CLASS-LEVEL 4						01.0 Cr
Prereq: 030c or advanced placement by instructor						
3080	1 11.00	M W	0555	201		

031A VOICE CLASS-LEVEL 1						01.0 Cr
Prereq: Consent of instructor						
3081	1 01.00	W F	0555	7		
3082	2 01.00	T Th	0555	7		
032A STRG TECH CL-UPPER						01.0 Cr
Prereq: Music major or minor						
3083	1 12.00	M W	Altg	301	Poulos H	
032B STRG TECH CL-LOWER						01.0 Cr
Prereq: Music major or minor						
3084	1 10.00	T Th	Altg	114	Valk A	
033A FLUTE & SINGLE REED						01.0 Cr
Prereq: Music major or minor or consent of instructor						
3085	1 08.00	T Th	0555	7	Resnick R	
033B DOUBLE REEDS						01.0 Cr
Prereq: Music major or minor or consent of instructor						
3086	1 08.00	T Th	0555	200	Hussey G	
033C MIXED WOODWINDS						01.0 Cr
Prereq: Music major or minor or consent of instructor						
3087	1 08.00	T Th	Altg	114	Fligel C	
034A BRASS TECH CL-UPPER						01.0 Cr
Prereq: Music major or minor						
3088	1 10.00	T Th	0555	7	Lemasters	
034B BRASS TECH CL-LOWER						01.0 Cr
Prereq: Music major or minor						
3089	1 10.00	T Th	Altg	301	Siener	
034C BRASS TECH CL-MIXED						01.0 Cr
Prereq: Music major or minor						
3090	1 10.00	T Th	Altg	115	Koenigstein	
035 PERCUSSION TECH CL						01.0 Cr
Prereq: Music major or minor						
3091	1 11.00	T Th	Altg	114	Hanes	
036A GUITAR CL-LEVEL 1						01.0 Cr
Prereq: Maj or min in MUS, ELED, early child, or instr cons						
3092	1 09.00	M W	0555	7	Bliven	
3093	2 11.00	M W	0555	7	Bliven	
036B GUITAR CL-LEVEL 2						01.0 Cr
Prereq: Maj or min in MUS, ELED, early child, or instr cons						
3094	1 11.00	T Th	0555	7	Bliven	

NOTE-- Students enrolling in the MUS 040,140,240,340,440, or 540 series must present a restricted class permit slip from the music adviser when registering.						
For the MUS 040,140,240,340,440 or 540 series, music majors and minors enroll for 2 semester hours on their principal instrument, taking one half-hour private lesson and studio class(Mondays at 10:00 A.M.) Those with prior approval by their applied jury for the specialization in Performance enroll for 4 semester hours taking two half-hour private lessons and the studio class each week. Non-music majors or minors, and those music majors taking a second instrument, enroll for 1 semester hour, taking one private or class lesson per week. Six hours of individual practice per week required for each lesson.						
040A APPLIED MUSIC-FLUTE						01.0 to 04.0 Cr
Prereq: Sat compl of beg class instr offered in area or equi						
3095	1 10.00	M	0555	200	Underwood	
To be arranged						
One additional meeting						
040B APPLIED MUSIC-OBOE						01.0 to 04.0 Cr
Prereq: Sat compl of beg class instr offered in area or equi						
3096	1 10.00	M	0555	207A	Hussey	
To be arranged						
One additional meeting						
040C APPLIED MUSIC-CLAR						01.0 to 04.0 Cr
Prereq: Sat compl of beg class instr offered in area or equi						
3097	1 10.00	M	0555	101	Resnick	
To be arranged						
One additional meeting						
040D APPLIED MUS-BASSOON						01.0 to 04.0 Cr
Prereq: Sat compl of beg class instr offered in area or equi						
3098	1 10.00	M	Altg	301	Fligel	
To be arranged						
One additional meeting						
040E APPLIED MUSIC-SAX						01.0 to 04.0 Cr
Prereq: Sat compl of beg class instr offered in area or equi						
3099	1 10.00	M	Altg	301	Fligel	
To be arranged						
One additional meeting						

3100	2	10.00	M	0555	207A	Hussey	
							To be arranged
							One additional meeting
							040F APPLIED MUSIC-HORN 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3101	1	10.00	M	Altg	116		
							To be arranged
							One additional meeting
							040G APPLIED MUS-TRUMPET 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3102	1	10.00	M	Altg	229	Olsson	
							To be arranged
							One additional meeting
							040H APPLI MUS-TROMBONE 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3103	1	10.00	M	Altg	229	Bootz	
							To be arranged
							One additional meeting
							040I APPLI MUS-BARITONE 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3104	1	10.00	M	Altg	229	Bootz	
							To be arranged
							One additional meeting
							040J APPLIED MUSIC-TUBA 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3105	1	10.00	M	Altg	229	Bootz	
							To be arranged
							One additional meeting
							040K APPLIED MUS-PERCUSS 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3106	1	10.00	M	Altg	114	Hanes	
							To be arranged
							One additional meeting
							040L APPLIED MUS-VIOLIN 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3107	1	10.00	M	Altg	106	Poulos	
							To be arranged
							One additional meeting
3108	2	10.00	M	Altg	106	Bergt	
							To be arranged
							One additional meeting
							040M APPLIED MUSIC-VIOLA 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3109	1	10.00	M	Altg	106	Poulos	
							To be arranged
							One additional meeting
							040N APPLIED MUSIC-CELLO 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3110	1	10.00	M	Altg	106	Bakker	
							To be arranged
							One additional meeting
							040O APP MUS-STRING BASS 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3111	1	10.00	M	Altg	106	Valk	
							To be arranged
							One additional meeting
							040P APPLIED MUSIC-VOICE 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3112	1	11.00	M W F	Altg	115		
							To be arranged

instructors for MUS 040p are Marvin, Kageff, Pressley, Wallace, Kingsbury, and Taylor							
							040Q APPLIED MUSIC-PIANO 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3113	1					Grizzell	
							To be arranged
							One additional meeting
3114	2	10.00	M	Altg	247	Barwick	
							To be arranged
							One additional meeting
3115	3	10.00	M	Altg	238	Werner	
							To be arranged
							One additional meeting

							040R APPLIED MUSIC-ORGAN 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3116	1	10.00	M		Shry	110	Bateman & Daugherty
							To be arranged
							One additional meeting
							040S APP MUS-HARPSICHORD 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3117	1	10.00	M		0415	105	Boe
							To be arranged
							One additional meeting
							040T APPLIED MUS-GUITAR 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3118	1	10.00	M		0555	7	Bliven
							To be arranged
							One additional meeting
							040U APPLI MUS-RECORDER 01.0 to 04.0 Cr
							Prereq: Sat compl of beg class instr offered in area or equi
3119	1	10.00	M		0555	203	Underwood
							To be arranged
							One additional meeting
							101 MUSIC FUNDAMENTALS 02.0 Cr
3120	1	08.00	M		Altg	116	Daugherty
		08.00	T		0555	201	
3121	2	08.00	M		Altg	116	Daughtery
		08.00	W		0555	201	
3122	3	08.00	M		Altg	116	Daugherty
		08.00	Th		0555	201	
3123	4	09.00	M		Altg	116	Taylor
		09.00	T		0555	201	
3124	5	09.00	M		Altg	116	Taylor
		09.00	Th		0555	201	
3125	6	09.00	M		Altg	116	Taylor
		09.00	F		0555	201	
3126	7	12.00	M		Altg	116	Lemasters
		12.00	T		0555	201	
3127	8	12.00	M		Altg	116	Lemasters
		12.00	Th		0555	201	
3128	9	12.00	M		Altg	116	Lemasters
		12.00	F		0555	201	
3129	10	01.00	M		Altg	116	Gordon
		01.00	T		0555	201	
3130	11	01.00	M		Altg	116	Gordon
		01.00	Th		0555	201	
3131	12	01.00	M		Altg	116	Gordon
		01.00	F		0555	201	
3132	13	02.00	M		Altg	116	Lemasters
		02.00	T		0555	201	
3133	14	02.00	M		Altg	116	Lemasters
		02.00	Th		0555	201	
3134	15	02.00	M		Altg	116	Lemasters
		02.00	F		0555	201	
3135	16	03.00	M		Altg	116	Gordon
		03.00	T		0555	201	
3136	17	03.00	M		Altg	116	Gordon
		03.00	W		0555	201	
3137	18	03.00	M		Altg	116	Gordon
		03.00	Th		0555	201	
							102 SURVEY-MUSIC LIT 02.0 Cr
							Prereq: Music major or minor
3138	1	01.00	T Th		Altg	116	Bakker
3139	2	02.00	T Th		Altg	116	Underwood
							104A AURAL SKILLS 01.0 Cr
3140	1	08.00	T Th		Altg	248	
3141	2	09.00	T Th		Altg	106	Hussey
3142	3	11.00	T Th		Altg	248	Bateman
3143	4	12.00	T Th		Altg	248	Fligel
							104B AURAL SKILLS 01.0 Cr
							Prereq: 104a or with prior consent of instr, concur enroll
3144	1	08.00	T Th		Altg	106	Fligel
							105A BASIC HARMONY 03.0 Cr
							Prereq: Concur reg in 104&030, or equiv aural & keyboard skil
3145	1	08.00	M W F		Altg	248	Bakker
3146	2	09.00	M W F		Altg	106	Hussey
3147	3	11.00	M W F		Altg	248	Bateman
3148	4	12.00	M W F		Altg	248	Fligel

105B BASIC HARMONY					03.0 Cr
Prereq: 105a					
3149	1 08.00	M W F	Altg	106 Bateman	
140 APPLIED MUSIC					01.0 to 04.0 Cr
Prereq: 3 yrs prior stu,perf exp, or 2 sem C or better at 040					
1 To be arranged					
See MUS 040 for listing					
204 ADV AURAL SKILLS					01.0 Cr
Prereq: 104b					
3151	1 08.00	T Th	Altg	115 Von Gunden	
3152	2 09.00	T Th	Altg	248 Werner	
3153	3 11.00	T Th	Altg	106 Eddins	
205 ADVANCED HARMONY					03.0 Cr
Prereq: 104b & 105b, & concurrent registration in 204					
3154	1 08.00	M W F	Altg	115 Von Gunden	
3155	2 09.00	M W F	Altg	248 Werner	
3156	3 11.00	M W F	Altg	106 Eddins	
240 APPLIED MUSIC					01.0 to 04.0 Cr
Prereq: 2 sem of C or better at 140, or cons of applied jury					
1 To be arranged					
See MUS 040 for listing					
280 BEGINNING COMP					02.0 Cr
Prereq: 105b or consent of instructor					
3158	1 09.00	Th	0555	203 Bottje & Coker	
	02.00	F	0555	203	
To be arranged					
Additional meeting times					
300 TCHG MUS-PRIM GRADE					02.0 Cr
Prereq: 101 or equivalent					
3159	1 12.00	T Th	Altg	116 Daugherty	
3160	2 12.00	W F	Altg	116 Daugherty	
302 MUSIC IN SPE					02.0 Cr
Prereq: 101 or equivalent					
3161	1 10.00	T Th	Altg	116 Mchugh	
3162	2 10.00	W F	Altg	116 Mchugh	
303 MUS FOR PRE-SCHOOL					02.0 Cr
3163	1 02.00	W F	Altg	116 Mchugh	
304 GENERAL MUS PROGRAM					02.0 Cr
Prereq: Admission to teacher education program					
3164	1 11.00	T Th	Altg	116 Gordon	
305 INSTRUMENT MUS-SCHL					02.0 Cr
Prereq: 304					
3165	1 12.00	W F	Altg	106 Koenigstein	
306 MUS SPEC IN EL SCHL					02.0 Cr
Prereq: 304					
3166	1 08.00	T Th	Altg	116 Mchugh	
317 CHOR CONDUCT & METH					03.0 Cr
Prereq: Music major or minor & junior standing					
3167	1 01.00	M W F	Altg	248 Taylor	
318 INSTRUMENT CONDUCT					03.0 Cr
Prereq: Music major or minor & junior standing					
3168	1 11.00	M W F	Altg	114 Bergt	
321 FORM AND ANALYSIS					02.0 Cr
Prereq: 204 and 207					
3169	1 09.00	T Th	Altg	116 Coker	
3170	2 11.00	W F	Altg	116 Fligel	
3171	3 12.00	T Th	Altg	106 Eddins	
324 INSTRUMENT ARRANG					01.0 Cr
Prereq: 205					
3172	1 12.00	M	Altg	106 Koenigstein	
340 APPLIED MUSIC					01.0 to 04.0 Cr
Prereq: 2 sem of C or better at 240, or cons of applied jury					
1 To be arranged					
See MUS 040 for listing					
341 ACCOMPANYING LAB					01.0 to 02.0 Cr
3174	1 09.00	T	0555	7 Grizzell	
346 OPERA WORKSHOP					01.0 to 02.0 Cr
3175	1 03.30-05.00	T Th F	Altg	301 Marvin & Wallace	

357A MUSIC HISTORY					03.0 Cr
Prereq: 102 and junior standing					
3176	1 09.00	MTWTh	Altg	115 Underwood	
3177	2 02.00	MTWTh	Altg	248 Poulos	
363A ENG,FR FOR SINGERS					01.0 Cr¹
Prereq: One or more sem of private or class voice instruct					
3178	1 10.00	T Th	Altg	248 Marvin	
365A CHAMBER MUS-VOCAL					01.0 Cr
3179	1 11.00	T Th	Altg	115 Pressley	
365B CHAMBER MUS-STRING					01.0 Cr
3180	1 03.00	T Th	Altg	106 Poulos H	
3181	2 03.00	T Th	Altg	115 Bakker	
365C CHAMBER MUS-WOODWND					01.0 Cr
3182	1 12.00	M W F	0555	7 Resnick	
365D CHAMBER MUS-BRASS					01.0 Cr
3183	1 To be arranged			Siener	
373 ROCK & POP MUSIC					03.0 Cr
3184	1 02.00	M W F	Lawson	131 Valk	
380 INTERMEDIATE COMP					02.0 Cr
Prereq: 280-4					
3185	1 02.00	F	0555	203 Bottje & Coker	
	09.00	Th	0555	203	
To be arranged					
Additional meeting times					
398 PARTIAL RECITAL					01.0 Cr
Prereq: Prior or concur reg in 340 & approv of applied jury					
3186	700 To be arranged				
400 PERFORMANCE TECHNIQ					01.0 Cr
Prereq: Complete 340 level or equiv in some fld of appl mus					
3187	1 To be arranged				
407 MODAL COUNTERPOINT					02.0 Cr
Prereq: 207					
3188	1 10.00	T Th	Altg	106 Coker	
414 COLLEGIUM MUSICUM					01.0 to 02.0 Cr
3189	1 07.00-09.00 pm	M	0415	105	
To be arranged					
Two additional meeting times					
420 INSTRUMENT REPAIR					01.0 Cr
3190	1 08.00	M W F	Altg	114 Lemasters	
430 JAZZ ARRANGING					01.0 Cr
Prereq: 324 or prior consent of instr					
3191	1 09.00	T	Altg	301 Valk	
440 APPLIED MUSIC					01.0 to 04.0 Cr
Prereq: 2 sem of C or better at 340, or cons of applied jury					
1 To be arranged					
See MUS 040 for listing					
447A ELECTRONIC MUSIC					02.0 Cr
Prereq: 280-4, or GSA 361-2, or consent of instructor					
3193	1 12.00	T Th	0555	203 Bottje & Von Gunden	
461 APP MUSIC PEDAGOGY					03.0 Cr
3194	1 12.00	M W F	Altg	115 Kageff	
3195	2 01.00	M W F	Altg	301 Grizzell	
468 MUSIC PRODUCTIONS					02.0 Cr
3196	1 01.00	T Th	Shry	110 Wallace	
476 CLASSICAL MUSIC					03.0 Cr
Prereq: 357 & grad maj-comp grad mus his ex. Nonmaj-consent					
3197	1 01.00	M W F	Altg	106	
480 ADVANCED COMP					02.0 Cr
Prereq: 380-4					
3198	1 02.00	T Th	Altg	301 Von Gunden	
	02.00	F	0555	203	
481 READ IN MUS THEORY					01.0 to 04.0 Cr
Prereq: 321 and 322 or prior consent of instructor					
3199	700 To be arranged				
482 READ-MUS HIST & LIT					01.0 to 04.0 Cr
Prereq: 357a & b or prior consent of instructor					
3200	700 To be arranged				
483 READINGS IN MUS ED					01.0 to 04.0 Cr
3201	700 To be arranged				
498 RECITAL					02.0 Cr
Prereq: Prior or concur regis in 440 & approv of applied jury					
3202	700 To be arranged				

499 INDEPENDENT STUDY		01.0 to 08.0 Cr	
Prereq: Prior approv of selected instr			
3203	700	To be arranged	
501 MUSIC BIBLIOG & RES		03.0 Cr	
3204	1	04.00-06.00	T Lib 217 Eddins
502A ANALYTIC TECHNIQUES		02.0 Cr	
Prereq: Satis compl grad prof exam in mus theor or defic req			
3205	1	04.30-05.30	T Th Altg 116 Mueller
540 APPLIED MUSIC		01.0 to 04.0 Cr	
Prereq: 2 sem of C or better at 440,or cons of applied jury			
1 To be arranged			
See MUS 040 for listing			
545 PED OF MUSIC THEORY		03.0 Cr	
3207	1	03.00-04.30	T Th Altg 116 Werner
556 ADVANCED CONDUCTING		02.0 Cr	
Prereq: 317 or 318 & graduate standing in music			
3208	1	02.00	T Th Altg 106 Bergt
566 ENSEMBLE		01.0 to 02.0 Cr	
3209	700	To be arranged	
568 OPERA WORKSHOP		01.0 to 08.0 Cr	
3210	1	03.30-05.00	T Th F Altg 301 Marvin & Wallace
578 20TH CENTURY MUSIC		03.0 Cr	
Prereq: Compld grad hist prof exam. For nonmaj-instr consent			
3211	1	02.00	M W F Altg 106 Mueller R
580 GRAD COMPOSITION		02.0 Cr	
Prereq: 480-4 or prior cons of instr			
3212	1	02.00	T Th F 0555 203 Bottje
To be arranged			
Additional meeting times			
595 MUSIC DOCUMENT		02.0 Cr	
Prereq: 501 and prior approv of topic by graduate committee			
3213	700	To be arranged	
598 GRADUATE RECITAL		04.0 Cr	
Prereq: Compl 4cr in mus 540 & approv of applied jury			
3214	700	To be arranged	
599 THESIS		02.0 to 06.0 Cr	
Prereq: 501(if writ rpt) & prior grad comm approv topic outl			
3215	700	To be arranged	

Nursing (NUR)

201A NURSING		01.0 to 12.0 Cr
Prereq: Consent of instructor		
3216	1 To be arranged	Hees
201B NURSING		01.0 to 12.0 Cr
Prereq: 201a		
3217	1 To be arranged	Hees A
202A NURSING		01.0 to 12.0 Cr
Prereq: 201-12		
3218	1 To be arranged	Hees A
202B NURSING		01.0 to 12.0 Cr
Prereq: 202a		
3219	1 To be arranged	Hees A
203A NURSING		01.0 to 12.0 Cr
Prereq: 202-12		
3220	1 To be arranged	Hees A
203B NURSING		01.0 to 12.0 Cr
Prereq: 203a		
3221	1 To be arranged	Hees A

Occupational Education (OE)

302 CONST METH-PRIM TCH						03.0 Cr
3222	1	01.00-02.50	M W F	Pull I	14	Shields
303 DIVERSIFIED CRAFTS						03.0 Cr
3223	1	08.00-09.50	M W F	Pull I	14	Heisler
3224	2	10.00-11.50	M W F	Pull I	14	Jenkins
3225	3	06.00-09.00pm	M W	Pull I	14	Jenkins
450 ADV OCC SKILLS,KNOW						01.0 to 05.0 Cr
Prereq: Intermed level study in the specialty						
3226	700	To be arranged				

489 DEF & DEV OCCU PROG				03.0 Cr
3227	1	02.00-03.15	T Th Tech A	422 Buila
3228	2	06.00-08.30 pm	Th Tech D	131 Bortz
490 METH,MAT-OCCUP PROG				03.0 Cr
3229	1	11.00-12.15	T Th Tech D	131 Shields
3230	2	06.00-08.30 pm	M Tech D	131 Rosenbarger
494 PRACTICUM				02.0 to 06.0 Cr
Prereq: 20 hrs in specialty				
3231	700	To be arranged		
505A POL IMPL & SUPER-OE				03.0 Cr
3232	1	06.00-08.30 pm	Th Tech A	310 Gooch
575 CHARAC-OE CLIENTELE				03.0 Cr
3233	1	06.00-08.30 pm	T Tech A	208 Huck
589 ARTICULATED OE PROG				03.0 Cr
3234	1	06.00-08.30 pm	M Tech A	410 Bortz

Philosophy (PHIL)

200		TYPES OF PHIL-INTRO				03.0 Cr ¹	
3289	1	02.00-03.15	T	Th	H Ec	203	Hahn L
300		ELEM METAPHYSICS				03.0 Cr ¹	
3290	1	09.35-10.50	T	Th	Ag	214	Kelly M
304		ANCIENT PHILOSOPHY				03.0 Cr ¹	
3291	1	12.00	M	W	F	Faner	1026 Diefenbeck J
305		MODERN PHILOSOPHY				03.0 Cr ¹	
3292	1	01.00	M	W	F	Faner	1222 Mijuskovic
320		DEDUCTIVE LOGIC				03.0 Cr ¹	
3293	1	02.00	M	W	F	Faner	1222 Clarke D
340		ETHICAL THEORIES				03.0 Cr ¹	
3294	1	09.00	M	W	F	Faner	1228 Howie J
378		MARXISM & TEC SOC				03.0 Cr ¹	
3295	1	11.00	M	W	F	H Ec	201 Gillan G
389		EXISTENTIAL PHIL				03.0 Cr ¹	
3296	1	11.00-12.15	T	Th	H Ec	202	Fronzizi R
397B		UNDERGRAD PHIL SEM				04.0 Cr	
3297	1	04.00-06.30	M		Faner	3113	Schedler
415		LOGIC OF SOC SCI				03.0 Cr ¹	
3298	1	09.35-10.50	T	Th	Faner	1224	Mcclure
435		SCIENTIFIC METHOD				04.0 Cr ¹	
3299	1	02.00-03.40	T	Th	Faner	3113	Audi
473B		EMPIRICISTS-HUME				03.0 Cr ¹	
Prereq: 305 or cons of instr							
3300	1	12.35-01.50	T	Th	Faner	3113	Mijuskovic B
486		EARLY AMERICAN PHIL				03.0 Cr ¹	
3301	1	11.00-12.15	T	Th	Faner	3113	Eames S
490		SPECIAL PROBLEMS				02.0 to 08.0 Cr	
Prereq: Consent of department							
3302	700	To be arranged					
491		UGRAD DIRECTED READ				01.0 to 03.0 Cr	
Prereq: Consent of instructor							
3303	700	To be arranged					
511		CHINESE PHILOSOPHY				03.0 Cr	
3304	1	04.00-06.30	T		Faner	3059	Liu
575		CONTEM CONTIN PHIL				03.0 Cr	
3305	1	04.00-06.30	M		Faner	3059	Gillian
577A		PRAGMA-PIERCE,DEWEY				03.0 Cr	
3306	1	07.00-09.30 pm	M		Faner	3059	Eames S
582		ARISTOTLE				03.0 Cr	
3307	1	07.00-09.30 pm	W		Faner	3059	Plochmann
588		HEGEL				03.0 Cr	
3308	1	01.00-03.30	M		Faner	3113	Diefenbeck
590		GENERAL GRAD SEM				03.0 Cr	
3309	1	01.00-03.50	T		Faner	2367	Plochmann
Topic: Spinoza							
591		READINGS IN PHIL				01.0 to 16.0 Cr	
Prereq: Consent of instructor							
3310	700	To be arranged					
595		TEACHING PHILOSOPHY				02.0 Cr	
3311	1	To be arranged					

¹Elective Pass/Fail ²Mandatory Pass/Fail

599	THESIS	02.0 to 06.0 Cr
3312	700 To be arranged	
600	DISSERTATION	03.0 to 16.0 Cr
3313	700 To be arranged	

For additional courses on oriental and western thought see also listings under Dept of Religious Studies.

Photographic and Audio-Visual Technology (PAVT)

111	PHOTO PROCESSING I	04.0 Cr
3314	1 09.00 M W F L3	119 White
	To be arranged	
	Additional lab hours	
113	PHOTO PROCESSING II	04.0 Cr
3315	1 09.00 T Th L3	119 Delmastro
	To be arranged	
	Additional lab hours	
3316	2 09.00 T Th L3	119
	To be arranged	
115	A-V EQUIPMT - OPER	06.0 Cr
3317	1 11.00 T Th L3	119 Delmastro
	To be arranged	
	Additional lab hours	
3318	2 11.00 T Th L3	119
	To be arranged	
215	PHOTO PROCESSING IV	06.0 Cr
	Prereq: 211	
3319	1 11.00 M W F L3	119 White
	To be arranged	
	Additional lab hours	
217	MAINT,REPAIR-AV EQP	06.0 Cr
	Prereq: 115	
3320	1 10.00 M W F L3	119 Delmastro
	To be arranged	
	Additional lab hours	
219A	GRAPHICS II	03.0 Cr
	Prereq: 209	
3321	1 12.00 M W F Fi	119 Delmastro
219B	GRAPHICS II	03.0 Cr
	Prereq: 209	
3322	1 To be arranged	Delmastro
221	PHOTO PROCESSING V	06.0 Cr
	Prereq: 113, 211	
3323	1 01.00 M W F L3	119 White
	To be arranged	
	Additional lab hours	

Physical Education For Men (PEM)

170A	VARSITY FOOTBALL	01.5 Cr
3393	1 03.00-05.00 MTWThF Stad W	121 Dempsey
170H	VARSITY SWIMMING	01.5 Cr
3394	1 03.00-05.00 MTWThF Pull P	61 Steele R
170I	VARSITY CROSS COUNT	01.5 Cr
3395	1 03.00-05.00 MTWThF Stad W	121 Hartzog
170J	VARSITY WRESTLING	01.5 Cr
3396	1 03.00-05.00 MTWThF Arena	555 Long L
200B	METH TCH GYMNASTICS	01.0 Cr
3397	201 08.00-09.50 T Th Arena	555 Meade W
	Above section meets 8/22-10/11	
200D	METH TCH SWIMMING	01.0 Cr
3398	201 08.00-09.50 M W Pull P	61 Carroll P
	Above section meets 10/17-12/9	
200F	METH TEACH WRESTLING	01.0 Cr
3399	201 08.00-09.50 T Th Arena	555 Long L
	Above section meets 10/13-12/8	
200G	METH TCH TRACK & FD	01.0 Cr
3400	201 11.00-12.50 T Th Arena	555 Stotlar
	Above section meets 8/23-10/11	
201B	TCH BADMINTON,BOWL	01.0 Cr
3401	201 08.00-09.50 M W Pull	102 Ellis W
	Above section meets 8/22-10/12	

201E	METH TCH ARCHERY	01.0 Cr
3402	201 10.00-11.50 M W Arena	555 Ellis W
	Above section meets 8/22-10/12	
201F	METH TCH VOLLEYBALL	01.0 Cr
3403	201 10.00-11.50 M W Arena	555 Wilkinson J
	Above section meets 10/17-12/7	
202	BODY MECH-CHILD K-3	02.0 Cr
3404	1 11.00 T Lingle	125 Franklin C
	10.00-11.50 Th Lingle	125

MOTOR LEARNING 02.0 Cr
See PEW for registration.

303	KINESIOLOGY	02.0 Cr
	Prereq: Physiology 300-3	
3405	1 08.00-09.50 W Tech A	405 Good L
	09.00 M Lingle	125
304	MECH BASES-HUM MOVE	02.0 Cr
3406	1 12.00 T Lingle	125 Good L
	09.00-10.50 F Tech A	405
305	P E FOR SPECIAL STU	02.0 Cr
	Prereq: At least junior standing	
3407	1 11.00 M W Wham	203 Foster

DANCE PHILOSOPHIES 03.0 Cr
See PEW for registration.

DANCE COMPOSITION 03.0 Cr
See PEW for registration.

316	AQUATIC FACILIT MGT	02.0 Cr
3408	1 03.00-04.50 T Tech A	405 Carroll
320	PHSL BASIS-HUM MOVE	03.0 Cr
	Prereq: GSA 209 or equivalent	
3409	1 01.00 M W Tech A	405 Carroll P
	12.00-01.50 T Tech A	405
325	PRINCIPLES OF P E	02.0 Cr
3410	1 10.00 MT Lingle	125 Shea

PRINCIPLES of P E 02.0 Cr
See PEW for registration.

330C	COACHING SWIMMING	01.5 to 03.0 Cr
3411	1 07.00-09.00 pm T Lingle	125 Steele
	To be arranged	
	One additional hour	
331	ADVANCED SCUBA	03.0 Cr
	Prereq: GSE 101e or consent of instructor	
3412	1 10.00-11.30 M W Pull P	61 Carroll P
	10.00 T Th Tech A	405
336	SELF DEF & RESTRAIN	02.0 Cr
3413	1 12.00-01.50 F Arena	555 Wilkinson
355A	TCH PRIN,TECH-INSTR	02.0 Cr
3414	1 06.30-07.30 pm M Lingle	125 Wilkinson J
	To be arranged	
	One additional hour	
355B	TCH PRIN,TECH-P HAN	02.0 Cr
3415	1 To be arranged	
355C	TCH PRIN,TECH-COACH	02.0 Cr
3416	1 To be arranged	Wilkinson
355D	TCH PRIN,TECH-TRAIN	02.0 Cr
3417	1 To be arranged	
357	ORG & ADMIN OF P E	03.0 Cr
3418	1 02.00 M W F Lingle	125

TESTS & MEASURE-P E 03.0 Cr
See PEW for registration.

376	CARE-PREV ATH INJ	02.0 Cr
	Prereq: Physiology 300	
3419	1 12.00 M W Th Lingle	125 Spackman R
	EVALUATION in P E 03.0 Cr	
	See PEW for registration.	

402	ORG & ADM OF ACTIV	02.0 Cr
3420	1 07.00-08.50 pm Th Lingle 125 Wilkinson J	
420	EFFECTS MOTOR ACTIV	03.0 Cr
	Prereq: GSA 209 or equivalent	
3421	1 07.00-09.50 pm T Lingle 121 Knowlton R	
493A	IND RES-DANCE	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3422	700 To be arranged	
493B	IND RES-KINESIOLOGY	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3423	700 To be arranged	
493C	IND RES-MEASUREMENT	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3424	700 To be arranged	
493D	IND RES-MOTOR DEVEL	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3425	700 To be arranged	
493E	IND RES-PHSL OF EX	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3426	700 To be arranged	
493F	IND RES-HIS & PHIL	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3427	700 To be arranged	
494A	PRACTICUM IN P.E.	01.0 Cr
	Prereq: Consent of advisor	
3428	700 To be arranged	
494B	PRACTICUM IN P.E.	01.0 Cr
	Prereq: Consent of advisor	
3429	700 To be arranged	
500	TECH OF RESEARCH	03.0 Cr
	Prereq: Consent of adviser & 400 or concurrent enrol or equi	
3430	1 07.00-09.50 pm W Lingle 125 Knowlton	

MOTOR LRN-PHYS SKIL See PEW for registration.

590	READINGS IN PHYS ED	01.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3431	700 To be arranged	
592	RESEARCH PROJECT-PE	03.0 Cr
	Prereq: 500 or equivalent, consent of advisor	
3432	700 To be arranged	
599	THESIS	03.0 to 06.0 Cr
	Prereq: 500 or equivalent and consent of adviser	
3433	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
3434	700 To be arranged	

Physical Education For Women (PEW)

115A	ARCHERY	00.5 Cr
3486	101 02.00-03.30 T Th Gym 208 Blackman C	
	Above section meets 8/23-10/27	
115E	FIELD HOCKEY	01.0 Cr
3487	101 11.00-12.40 T Th Pull 102 Illner J	
	Above section meets 8/23-10/27	
3488	102 11.00-12.40 T Th Pull 102	
	Above section meets 8/23-10/27	
115H	BEGIN CONTEMP DANCE	01.0 Cr
3489	1 10.00-11.30 W F Gym 207	
3490	2 10.00-11.30 W F Gym 208	
	115h is open to men and women	
115I	SOCCER-SPEEDBALL	01.0 Cr
3491	101 02.00-03.40 M W Gym 207 Brechtelsbauer K	
	Above section meets 8/22-10/26	
3492	102 02.00-03.40 M W Gym 207	
	Above section meets 8/22-10/26	
115J	BOWLING	00.5 Cr
3493	101 02.00-03.30 T Th Center 103 Brechtelsbauer K	
	Above section meets 10/13-12/8	
115M	TENNIS	01.0 Cr
3494	101 02.00-03.40 M W Gym 114	
	Above section meets 8/22-10/26	
115N	TRACK AND FIELD	01.0 Cr
3495	101 11.00-12.40 M W Gym 207 Blackman C	
	Above section meets 8/22-10/26	

3496	102 11.00-12.40 M W Gym 208	
	Above section meets 8/22-10/26	
115O	TUMBLING & GYMNAS	01.0 Cr
3497	1 08.00-09.30 M W Gym 207	
115P	VOLLEYBALL	01.0 Cr
3498	1 10.00-11.30 T Th Gym 207 Thorpe J	
3499	2 10.00-11.30 T Th Gym 208	
210	MOTOR LEARNING	02.0 Cr
	Prereq: At least sophomore standing	
3500	1 09.00 W F Gym 204 Lefevers V	
3501	2 09.00 T Th Gym 204 Lefevers V	
213	STAGE MOVEMENT	02.0 Cr
3502	1 09.35-10.50 T Th Comm 1038	
3503	2 03.35-04.50 T Th Pull 42	
230A	BEG TECH-CLS BALLET	02.0 Cr
3504	1 01.00-02.30 M W F Gym 206	
3505	2 02.30-03.50 M W F Gym 206	
230B	BEG TECH-CLS BALLET	02.0 Cr
	Prereq: 230a or consent of instructor	
3506	1 10.00-11.50 T Th Gym 206	
230C	BEG TECH-CLS BALLET	02.0 Cr
	Prereq: 230b or consent of instructor	
3507	1 11.00-12.30 M W F Gym 206	
240A	BEG TECH-CONT DANCE	02.0 Cr
3508	1 11.00-12.30 M W F Pull 42	
240B	INT TECH-CONT DANCE	02.0 Cr
	Prereq: 240a	
3509	1 01.00-02.50 T Th Pull 42	
240C	ADV TECH-CONT DANCE	02.0 Cr
	Prereq: 240b	
3510	1 11.00-12.50 T Th Pull 42	
258	WORK EXPERIENCE	01.0 to 05.0 Cr ²
	Prereq: 12 credits of C or better in PEW courses	
3511	1 To be arranged Paratore J	
	Restricted to written consent of instructor	
302	TEACHING PRACTICUM	01.0 Cr ²
	Prereq: Consent of department and jr standing	
3512	1 To be arranged Blackman C	
304B	TCH FIELD HOCKEY	01.0 Cr
	Prereq: 115e,210	
3513	201 01.00-02.30 T Th Gym 208 Illner J	
	Above section meets 8/23-10/11	
304F	TCH VOLLEYBALL	01.0 Cr
	Prereq: 115p,210	
3514	201 01.00-02.30 T Th Gym 207	
	Above section meets 10/13-12/8	
305	P E FOR SPECIAL STU	02.0 Cr
	Prereq: At least junior standing	
3515	1 10.00 T Th Gym 204	
312	DANCE PHILOSOPHIES	03.0 Cr
	Prereq: A beginning dance course and/ or stage movement	
3516	1 01.00 M W Gym 206	
	01.00-02.50 F Gym 206	
316	ADVANCED SWIMMING	01.0 Cr ¹
	Prereq: 115l or GSE 111b or equivalent; consent of instruct	
3517	301 01.00-02.50 T Th Pull P 61	
	Above section meets 8/23-9/22	
318	WATER SAFETY INSTR	02.0 Cr ¹
	Prereq: 316 & cur Red Cross adv lifesav cert; cons of instr	
3518	101 01.00-02.50 T Th Pull P 61	
	Above section meets 9/27-12/8	
319	PHYS ACT-CHLD & YTH	03.0 Cr
3519	1 09.00 M W F Pull 102	
3520	2 09.00-10.30 T Th Pull 102	
3521	3 11.00 M W F Pull 102	
3522	4 04.00-05.30 T Th Gym 208	
320	PHSL BASIS-HUM MOVE	03.0 Cr
	Prereq: GSA 209 or equivalent	
3523	1 01.00 M W Tech A 405	
	12.00-01.50 Th Tech A 405	
	Alternate choice for Thursday meeting is 2:00-3:50	

325	PRINCIPLES OF P E	02.0 Cr
3524	1 10.00 W F Gym 204 Thorpe J	
330	COACH WOMENS SPORTS	02.0 Cr
	Prereq: Junior standing, competitive experience	
3525	1 09.00 T Th Gym 203 West C	
352	HIST-PHYSICAL EDUC	01.0 Cr
3526	201 08.00 T Th Gym 204	
	Above section meets 8/23-10/11	
356B	ADV MTH TCH EL SCH	02.0 Cr
	Prereq: 319 or 350	
3527	1 01.00 M W Gym 208	
	01.00-02.50 F Gym 208	
360A	THEORY-OFFIC BADMIN	00.5 Cr ²
	Prereq: The corresponding activity course	
3528	1 To be arranged	
360B	THEORY-OFF BASKETBL	00.5 Cr ²
	Prereq: The corresponding activity course	
3529	1 To be arranged	
360C	THEORY-OFF FLD HOCK	00.5 Cr ²
	Prereq: The corresponding activities course	
3530	1 To be arranged	
360D	THEORY-OFFIC GYMNAS	00.5 Cr ²
	Prereq: The corresponding activity course	
3531	1 To be arranged	
360E	THEORY-OFFIC SOFTBL	00.5 Cr ²
	Prereq: The corresponding activity course	
3532	1 To be arranged	
360F	THEOR-OFF COMP SWIM	00.5 Cr ²
	Prereq: The corresponding activity course	
3533	1 To be arranged	
360G	THEOR-OFF SYNC SWIM	00.5 Cr ²
	Prereq: The corresponding activity course	
3534	1 To be arranged	
360H	THEOR-OFF TRK & FLD	00.5 Cr ²
	Prereq: The corresponding activity course	
3535	1 To be arranged	Blackman C
360I	THEORY-OFFIC VOLLBL	00.5 Cr ²
	Prereq: The corresponding activity course	
3536	1 To be arranged	
370	TESTS & MEAS IN P E	03.0 Cr
	Prereq: At least junior standing	
3537	1 09.00 M W F Gym 203 West C	
376	CARE-PREV ATH INJ	02.0 Cr
	Prereq: Physiology 300	
3538	1 12.00 M WTh Lingle 125 Spackman R	
	To be arranged	
	One additional hour	
400	EVALUATION IN P E	03.0 Cr
3539	1 11.00 M W F Gym 203 West C	
402	ORG & ADM OF ACTIV	02.0 Cr
3540	1 07.00-08.50 pm Th Lingle 125 Wilkinson J	
420	EFFECTS MOTOR ACTIV	03.0 Cr
	Prereq: GSA 209 or equivalent	
3541	1 07.00-09.50 pm T Lingle 121 Knowlton R	
493A	IND RES-DANCE	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3542	700 To be arranged	
493B	IND RES-KINESIOLOGY	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3543	700 To be arranged	
493C	IND RES-MEASUREMENT	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3544	700 To be arranged	
493D	IND RES-MOTOR DEVEL	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3545	700 To be arranged	
493E	IND RES-PHSL OF EX	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3546	700 To be arranged	

493F	IND RES-HIS & PHIL	02.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3547	700 To be arranged	
494A	PRACTICUM IN P.E.	01.0 Cr
	Prereq: Consent of advisor	
3548	700 To be arranged	
494B	PRACTICUM IN P.E.	01.0 Cr
	Prereq: Consent of advisor	
3549	700 To be arranged	
500	TECH OF RESEARCH	03.0 Cr
	Prereq: Consent of adviser & 400 or concurrent enrol or equi	
3550	1 07.00-09.50 pm W Lingle 125 Knowlton J	
513	MOTOR LRN-PHYS SKIL	03.0 Cr
3551	1 02.00 M W F Gym 204	
590	READINGS IN PHYS ED	01.0 to 04.0 Cr
	Prereq: Consent of adviser & dept chairman	
3552	700 To be arranged	
592	RESEARCH PROJECT-PE	03.0 Cr
	Prereq: 500 or equivalent, consent of advisor	
3553	700 To be arranged	
599	THESIS	03.0 to 06.0 Cr
	Prereq: 500 or equivalent and consent of adviser	
3554	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
3555	700 To be arranged	

Physical Therapist Assistant (PTH)

100	PHYS THERAPY ORIENT	02.0 Cr
3556	1 03.00 M Wham 203 Okita T	
	03.00 W Wham 305	
	Tow hours lab	
202	PHYSICAL REHAB TECH	02.0 Cr
3557	1 01.00-02.50 F Wham 120 Okita T	
	12.00 F Wham 307	
3558	2 01.00-02.50 W Wham 120 Okita T	
	12.00 F Wham 307	
203	PATHOLOGY	01.0 Cr
	Prereq: GSA 209	
3559	1 01.00 M Wham 303 Greene B	
213	THERAPEUT MODAL II	02.0 Cr
	Prereq: GSA 101	
3560	1 01.00 T Th Wham 329 Greene B	
	12.00 M W Wham 124	
3561	2 01.00 T Th Wham 329 Greene B	
	12.00 T Th Wham 124	
214	PTH SCI PRACTICUM	03.0 Cr
	Prereq: 207,209,213	
3562	1 To be arranged	
321	CLINICAL INTERNSHIP	10.0 Cr
	Prereq: Complete all PTH curric req with minimum GPA 2.0	
3563	1 To be arranged	Okita T
322	CLINICAL SEMINAR	02.0 Cr ²
	Prereq: Concurrent enrollment in 321	
3564	1 To be arranged	Okita T

Physics and Astronomy (PHYS)

102	EVERYBODY'S EINSTEIN	01.0 Cr
3587	1 01.00 T Tech A 111 Zitter R	
203A	COLLEGE PHYSICS	03.0 Cr ¹
	Prereq: Math 110b or 111	
3588	1 11.00 M W F Nkrs B 440 Nickell W	
	Note-tutorial sessions TBA	
3589	2 11.00 M W F Nkrs B 440 Nickell W	
	Note-tutorial sessions TBA	
3590	3 11.00 M W F Nkrs B 440 Nickell W	
	Note-tutorial sessions TBA	
3591	4 01.00 M W F Nkrs B 240 Fang C	
	Note-tutorial sessions TBA	
204A	COLLEGE PHYS-HONORS	03.0 Cr ¹
	Prereq: Math 110a or 111 or advanced standing	
3592	1 01.00 M W F Nkrs B 240 Fang C	
	Above section is for Presidents Scholars	
205A	UNIVERSITY PHYSICS	03.0 Cr ¹
	Prereq: Math 150 or concurrent enrl	
3593	1 08.00 M W F Tech A 111 Nickell W	
	Note-tutorial sessions TBA	

205B UNIVERSITY PHYSICS

03.0 Cr¹

Prereq: 205a

3595 1 09.00 M W F Nkrs C 218 Henneberger W

253A COLLEGE PHYSICS LAB

01.0 Cr¹

3596 1 08.00-10.50 Th Nkrs C 405
3597 2 08.00-10.50 T Nkrs C 405
3598 3 08.00-10.50 W Nkrs C 405
3599 4 11.00-01.50 T Nkrs C 405
3600 5 11.00-01.50 Th Nkrs C 405
3601 6 11.00-01.50 F Nkrs C 405
3602 7 03.00-05.50 Th Nkrs C 405
3603 8 03.00-05.50 T Nkrs C 405
3604 9 06.00-08.50 pm T Nkrs C 405
3605 10 06.00-08.50 pm W Nkrs C 405
3606 11 06.00-08.50 pm Th Nkrs C 405

254A COLL PHYS HONOR LAB

01.0 Cr¹

Prereq: Concurrent enrollment in 204a

3607 1 06.00-08.50 pm Th Nkrs C 405

255A UNIVERSITY PHYS LAB

01.0 Cr

Prereq: Concurrent enrollment in 205a

3608 1 08.00-10.50 F Nkrs C 403
3609 2 09.00-11.50 M Nkrs C 403
3610 3 11.00-01.50 W Nkrs C 403
3611 4 12.00-02.50 M Nkrs C 403
3612 5 02.00-04.50 W Nkrs C 403
3613 6 03.00-05.50 M Nkrs C 403
3614 7 06.00-08.50 pm M Nkrs C 403

255B UNIVERSITY PHYS LAB

01.0 Cr

Prereq: Concurrent enrollment in 205b

3615 1 06.00-08.50 pm M Nkrs C 405

301 THEORETIC METH-PHYS

02.0 Cr¹

Prereq: 203a or 204a or 205a, math 250 or consent of instr

3616 1 09.00 T Th Nkrs C 406 Saporoschenko

302 ASTRONOMY-HONORS

03.0 Cr¹

Prereq: One of 203a,204a, or 205a, plus MATH 111 or cons instr

3617 1 03.00 M W F Nkrs A 278 Sanders F

310 MECHANICS I

03.0 Cr¹

Prereq: 301 or Mathematics 305 or concurrent enrollment

3618 1 02.00 M W F Faner 2205 Johnson K

324 ELECTRIC CIRCUITS

02.0 Cr¹

Prereq: 203 or 204 or 205, MATH 111

3619 1 11.00 T Th Nkrs C 406 Saporoschenko

340 THERMODYNAMICS

02.0 Cr¹

Prereq: 203 or 204 or 205 and MATH 250

3620 1 12.00 T Nkrs C 410 Zitter R

To be arranged

355 ADVANCED HI-FI LAB

01.0 Cr

Prereq: Concurrent or previous enrollment in 325

3621 1 01.00-02.50 T Nkrs C 406 Johnson
3622 2 01.00-02.50 W Nkrs C 406 Telschow
3623 3 02.00-03.50 Th Nkrs C 406 Watson

360A THEO & APPL ACOUST

03.0 Cr¹

Prereq: 301 or Math 305 or concurrent enrollment

3624 1 12.00 M W F Faner 2205

410 MECHANICS II

03.0 Cr¹

Prereq: 310 or consent of instr

3625 1 08.00 M W F Nkrs A 278 Telschow K

424 ELECTRONICS

02.0 Cr¹

Prereq: 324, or consent of instructor

3626 1 01.00 T Th Nkrs C 406 Saporoschenko

428 MODERN OPTICS

02.0 Cr¹

Prereq: 328 and 420

3627 1 02.00 T Th Faner 2204 Chang-Fang

430 MODERN PHYSICS

04.0 Cr¹

Prereq: 310 and 320

3628 1 09.00 MTW F Faner 2373 Johnson

470 SPECIAL PROJECTS

01.0 to 03.0 Cr¹

Prereq: 310, 320

3629 700 To be arranged

500A MATH METH IN PHYS

03.0 Cr

Prereq: Math 407 or equivalent or consent of instructor

3630 1 11.00 M W F Faner 2406 Gruber B

510 CLASSICAL MECHANICS

04.0 Cr

Prereq: 410

3631 1 01.00 MTW F Faner 2406 Watson

520B ELECTROMAG THEORY

03.0 Cr

Prereq: 420

3632 1 10.00 MTW F Nkrs C 410 Henneberger W

530A QUANTUM MECHANICS

03.0 Cr

Prereq: Math 406 or consent of instr; 500 desirable

3633 1 09.00 M W F Tech A 208 Sanders F

570 SPEC PROJECTS-PHYS

01.0 to 04.0 Cr

Prereq: Consent of instructor

3634 700 To be arranged

581 GRADUATE SEMINAR

01.0 to 03.0 Cr

Prereq: Consent of instructor

3635 1 04.00 W Nkrs C 410

599 THESIS

01.0 to 06.0 Cr

3636 700 To be arranged

Physiology (PHSL)

210 INTRO HUMAN PHYSIOL

04.0 Cr

Prereq: 1 yr biological science & reasonable knowldge chem

3653 1 10.00 M W F Faner 1136 Strack L

01.00-02.50 Th LS II 149A

Above section restr to agriculture students only

3654 2 10.00 M W F Faner 1136 Strack L

03.00-04.50 W LS II 149A

Above section restr to agriculture students only

3655 3 03.35-04.50 T Th Lawson 231 Miller

01.00-02.50 M LS II 149A

3656 4 03.35-04.50 T Th Lawson 231 Miller

01.00-02.50 T LS II 149A

3657 5 03.35-04.50 T Th Lawson 231 Miller D

01.00-02.50 W LS II 149A

258 WORK EXPERIENCE

02.0 to 08.0 Cr

3658 700 To be arranged

Consent of chairman required

300 HUMAN ANATOMY

03.0 Cr

Prereq: Not open to students who have taken PHSL 301

3659 1 09.00 M W F Lawson 101 Taylor G

3660 2 11.00 M W F Lawson 101 Mickus J

401A ADV HUMAN ANATOMY

05.0 Cr

Prereq: Limited facilities-permission of instr is required

3661 1 02.00-03.50 MT Th F LS II 155 Taylor G

402A CONCEPTS OF ANATOMY

03.0 Cr

Prereq: Senior standing or consent of instructor

3662 1 12.00 M W F LS II 149B

410A MAMMALIAN PHSL

05.0 Cr

Prereq: College level chem & physics & at least jr standing

3663 1 08.00 M W F Lawson 151

08.00-09.50 T Th LS II 149B

3664 2 08.00 M W F Lawson 151

09.00-10.50 M W LS II 149B

3665 3 08.00 M W F Lawson 151

01.00-02.50 T Th LS II 149B

3666 4 08.00 M W F Lawson 151

01.00-02.50 M W LS II 149B

411A EXPERIM ANIMAL SURG

02.0 Cr

3667 1 10.00 M W LS II 430 Timmons

414 ANAT,PHSL-SPCH,HEAR

03.0 Cr

Prereq: Consent of instructor required for graduate students

3668 1 10.00 T Th LS II 149B

10.00-11.50 F LS II 149B

420A PRIN-PHARMACOLOGY

03.0 Cr

Prereq: Organic chem & basic courses in bio, or cons of instr

3669 1 10.00 M W LS II 450 Gass G

10.00-11.50 T LS II 149A

3670 2 10.00 M W LS II 450 Gass G

10.00-11.50 Th LS II 149A

430A CELLULAR PHYSIOLOGY					02.0 Cr
Prereq: Organic chemistry					
3671	1	11.00	T Th	LS II	430 Dunagan
433 COMPARATIVE PHSL					04.0 Cr
Prereq: One year of biological science					
3672	1	03.00-04.50	M W	LS II	430 Miller
440 BIOPHYSICS					04.0 Cr
Prereq: One year college phys, one year college biology					
3673	1	02.00	MTW F	LS II	450
491 INDEPEND RES-HONORS					03.0 to 08.0 Cr
3674	700	To be arranged			
492 SPECIAL PROB-PHSL					01.0 to 03.0 Cr
3675	700	To be arranged			
500 ADV SEMINAR-PHSL					01.0 Cr
3676	1	04.00	W	LS II	450 Mickus
560 PHSL TECHNIQUES					02.0 Cr
3677	1	To be arranged			
570P SPECIAL TOPICS					03.0 Cr
3678	1	To be arranged			
Topic: Isotope Techniques					Peterson
570Q REPRODUCT ENDOCRIN					03.0 Cr
3679	1	To be arranged			
590 RD/RES-CUR PHSL TOP					01.0 to 04.0 Cr
3680	700	To be arranged			
599 THESIS RESEARCH					01.0 to 06.0 Cr
3681	700	To be arranged			
600 DISSERTATION RES					01.0 to 32.0 Cr
3682	700	To be arranged			

Plant and Soil Science (PLSS)

200 PRIN FLD CROP PROD				03.0 Cr
3683	1	10.00	M W Ag	102 Elkins
		08.00-09.50	Th Ag	171
3684	2	10.00	M W Ag	102 Elkins
		10.00-11.50	Th Ag	171
3685	3	10.00	M W Ag	102 Elkins
		01.00-02.50	Th Ag	171
3686	4	10.00	M W Ag	102 Elkins
		03.00-04.50	Th Ag	171
220 GEN HORTICULTURE				03.0 Cr
3687	1	09.00	W F Ag	166 Hillyer
		08.00-09.50	T Ag	181
3688	2	09.00	W F Ag	166 Hillyer
		10.00-11.50	T Ag	181
3689	3	09.00	W F Ag	166 Hillyer
		01.00-02.50	T Ag	181
3690	4	09.00	W F Ag	166 Hillyer
		03.00-04.50	T Ag	181
228 FLORAL ARRANGEMENT				02.0 Cr
3691	1	02.00	T Ag	168 Beyler
		01.00-02.50	W Ag	187
3692	2	02.00	T Ag	168 Beyler
		12.00-01.50	F Ag	187
3693	3	02.00	T Ag	168 Beyler
		02.00-03.50	F Ag	187
240 SOIL SCIENCE				04.0 Cr
Prereq: A course in chemistry; geology suggested				
3694	1	01.00	M W F Ag	102 Jones & Varsa
		08.00-09.50	T Ag	167
3695	2	01.00	M W F Ag	102 Jones & Varsa
		10.00-11.50	T Ag	167
3696	3	01.00	M W F Ag	102 Jones & Varsa
		01.00-02.50	T Ag	167
3697	4	01.00	M W F Ag	102 Jones & Varsa
		08.00-09.50	Th Ag	167
3698	5	01.00	M W F Ag	102 Jones & Varsa
		10.00-11.50	Th Ag	167
3699	6	01.00	M W F Ag	102 Jones & Varsa
		01.00-02.50	Th Ag	167

258 WORK EXPERIENCE				01.0 to 30.0 Cr²
Prereq: Consent of department				
3700	700	To be arranged		
300A FIELD CROP PROD				02.0 Cr¹
Prereq: Introductory crops course or consent of instructor				
3701	1	09.00	M W Ag	216 Stucky
305 PLANT GENETICS				04.0 Cr¹
Prereq: Course in biology				
3702	1	02.00	M W F Ag	168 Myers
		01.00-02.50	Th Ag	181
3703	2	02.00	M W F Ag	168 Myers
		03.00-04.50	Th Ag	181
327A LANDSCAPE PLANT MAT				02.0 Cr
3704	1	12.00	M Ag	214 Pierceall
		08.00-09.50	W Ag	171
3705	2	12.00	M Ag	214 Pierceall
		10.00-11.50	W Ag	171
3706	3	12.00	M Ag	214 Pierceall
		01.00-02.50	W Ag	171
3707	4	12.00	M Ag	214 Pierceall
		03.00-04.50	W Ag	171
346 SOIL & WATER CONSER				02.0 Cr
Prereq: A course in soils suggested				
3708	1	10.00	M W Ag	168 Jones
347 LAB-SOIL & WTR CONS				01.0 Cr
3709	1	08.00-09.50	F Ag	167 Jones
3710	2	10.00-11.50	F Ag	167 Jones
359 INTERN PROGRAM				01.0 to 06.0 Cr²
Prereq: Junior standing and approval of department				
3711	700	To be arranged		
380A PLSS EVAL-GRAIN				02.0 Cr¹
3712	1	01.00-02.50	M F Ag	171 Stucky
380B PLSS EVAL-HORTICULT				01.0 Cr¹
3713	1	02.00-03.50	W Ag	181 Coorts
381 PLSS SEMINAR				01.0 Cr
Prereq: Junior standing				
3714	1	04.00	M Ag	220 Hillyer
3715	2	04.00	M Ag	170 Mowry
3716	3	04.00	M Ag	218 Olsen
3717	4	04.00	M Ag	148 Holmes
390 SP STUDIES IN PLSS				01.0 to 04.0 Cr
Prereq: Consent of department chairman				
3718	700	To be arranged		
391 HONORS IN PLSS				01.0 to 04.0 Cr
Prereq: GPA-3.0 with 3.25 in major, & consent of dept chrmn				
3719	700	To be arranged		
408 WRLD CROP PROD PROB				03.0 Cr¹
Prereq: 200				
3720	1	01.00	M W Ag	222 Olsen
		01.00-02.50	Th Ag	148
419 FORAGE CROP MGT				03.0 Cr
Prereq: Botany 200 or one course in biology or equivalent				
3721	1	11.00	M W Ag	168 Olsen
		01.00-02.50	T Ag	171
3722	2	11.00	M W Ag	168 Olsen
		03.00-04.50	T Ag	171
424 FLORICULTURE				03.0 Cr
Prereq: 423 or consent of instructor				
3723	1	09.00	W F Ag	168 Coorts
		09.00-10.50	M Ag	181
3724	2	09.00	W F Ag	168 Coorts
		02.00-03.50	M Ag	181
428A ADV LANDSCAPE DES				03.0 Cr
Prereq: 328-4 or consent of instructor				
3725	1	02.00	M Ag	195 Pierceall
		01.00-02.50	T Th Ag	195
432 NURSERY MANAGEMENT				04.0 Cr
Prereq: 220 or consent of instructor				
3726	1	08.00	M W F Lawson	231 Maleike
		08.00-09.50	Th Ag	181
3727	2	08.00	M W F Lawson	231 Maleike
		10.00-11.50	Th Ag	181
3728	3	08.00	M W F Lawson	231 Maleike
		10.00-11.50	W Ag	181

437 VEGETABLE PRODUCT					04.0 Cr
Prereq: 220 or consent of department					
3729	1	11.00	M WTh	Ag	170 Hillyer
		10.00-11.50	F	Ag	181
442 SOIL PHYSICS					03.0 Cr
Prereq: 240					
3730	1	10.00	T Th	Ag	170 Jones
		03.00-04.50	T	Ag	167
443 SOIL MANAGEMENT					03.0 Cr ¹
Prereq: 240					
3731	1	10.00	M F	Ag	132 Varsa
		10.00-11.50	W	Ag	167
520 GROWTH & DEV-PLANTS					03.0 Cr
Prereq: Bot 320 or cons of instr					
3732	1	12.00	M W	Ag	170 Coorts
		12.00-01.50	F	Ag	181
524 ADV PLANT GENETICS					02.0 Cr
Prereq: Biology 305 or equivalent					
3733	1	08.00	M W	Ag	170 Myers
560 FIELD PLOT TECH					03.0 Cr
3734	1	09.00	M W F	Ag	170 Leasure
581 SEMINAR					01.0 Cr
3735	1	04.00	W	Ag	155 Coorts
588 INTERNATL GRAD STU					01.0 to 08.0 Cr
Prereq: Cons of dept chairman					
3736	700	To be arranged			
590 READINGS					01.0 to 04.0 Cr
Prereq: Cons of dept					
3737	700	To be arranged			
592 SPECIAL PROBLEMS					01.0 to 03.0 Cr
Prereq: Cons of dept					
3738	700	To be arranged			
593 INDIVIDUAL RESEARCH					01.0 to 04.0 Cr
Prereq: Cons of dept					
3739	700	To be arranged			
599 THESIS					01.0 to 06.0 Cr
Prereq: Cons of dept					
3740	700	To be arranged			

Political Science (POLS)

200 INTR DIS POLS-SCOPE				03.0 Cr¹
3770	1	11.00	M W F Faner	1006 Paine J
3771	2	02.00-03.15	T Th H Ec	122 Garner W
213 ST & LOCAL GOVT				03.0 Cr¹
Prereq: GSB 212				
3772	1	09.00	M W F Faner	1004 Baker J
3773	2	12.35-01.50	T Th H Ec	118
3774	3	02.00	M W F H Ec	203 Mason R
303 INTRO-POLIT THEORY				03.0 Cr¹
Prereq: 200 recommended				
3775	1	10.00	M H Ec	208 Paine J
		10.00	W F H Ec	203
319 POLITICAL PARTIES				03.0 Cr¹
Prereq: GSB 212				
3776	1	09.00	M W F Pull	227 Derge D
321 LEGISLATIVE PROCESS				03.0 Cr¹
Prereq: GSB 212				
3777	1	02.00	M W F H Ec	102 Jones J
330 INTRO-LEGAL PROCESS				03.0 Cr¹
Prereq: GSB 212				
3778	1	08.00-09.15	T Th Faner	1030 Wasby S
331 DEV-AMERICAN CONSTI				03.0 Cr¹
Prereq: GSB 212				
3779	1	02.00-03.15	T Th Faner	1026 Turner M
332 LAW&CIVIL LIBERTIES				03.0 Cr¹
Prereq: GSB 212 recommended				
3780	1	11.00	M W F Faner	1026 Nelson R
Above section crosslisted with BAS 345				
334 ADMIN OF JUSTICE				03.0 Cr¹
Prereq: GSB 212				
3781	1	11.00-12.15	T Th Faner	1005 Luskin M

340 INTRO PUBLIC ADMIN					03.0 Cr ¹
Prereq: GSB 212					
3782	1	03.00	M W F	Faner	1006 Foster J
3783	2	03.35-04.50	T Th	Faner	1004
353 COMP COMMUNIST SYS					03.0 Cr ¹
3784	1	01.00	M W F	Wham	205 Kamarasy E
366 INT-LAT AM GOVT&POL					03.0 Cr ¹
3785	1	02.00	M W F	Faner	1006 Garner
382 NEW POLITCS-EUROPE					03.0 Cr ¹
3786	1	03.00	M W F	Ag	224 Landecker M
390 READINGS-POL SCI					01.0 to 06.0 Cr
Prereq: Consent of instructor prior to registration					
3787	700	To be arranged			
392 HONORS SEMINAR-POLS					01.0 to 06.0 Cr
Prereq: Pr Schol & jr stand or 3.0 cum GPA or cons of instr					
3788	1	12.35-01.50	T Th	Pull	211 Miller R
395 INTERN-PUB AFFAIRS					02.0 to 12.0 Cr
Prereq: Consent of faculty supervisor & dept chairperson					
3789	700	To be arranged			
415 URBAN POLITICS					03.0 Cr ¹
Prereq: 213					
3790	1	10.00	M W F	Faner	1006 Foster J
426 POL OF SOC WELFARE					03.0 Cr ¹
3791	1	09.35-10.50	T Th	Faner	1005
427 POL OF NATL DEFENSE					03.0 Cr ¹
3792	1	12.35-01.50	T Th	Pull	215 Dale R
428 GOVERNMENT & LABOR					03.0 Cr ¹
Prereq: GSB 212 or consent of instructor					
3793	1	12.35-01.50	T Th	Nkrs C	218 Edelman M
Above section crosslisted with ECON 436					
429 RACE AND POLITICS					03.0 Cr ¹
Prereq: GSB 212					
3794	1	12.35-01.50	T Th	Faner	1224 Wasby S
433A CONSTITUTIONAL LAW					04.0 Cr ¹
Prereq: GSB 212. POLS 330 recommended					
3795	1	09.00	MTWTh	Faner	1028 Nelson R
441 ORGANIZATION THEORY					03.0 Cr ¹
Prereq: 340 or consent of instructor					
3796	1	02.00-03.15	T Th	Faner	1004 Goodsell C
443 PUB FINANCIAL ADM					03.0 Cr ¹
Prereq: 213					
3797	1	09.00	M W F	Ag	154 Ervin O
444 POLICY ANALYSIS					03.0 Cr ¹
3798	1	01.00	M W F	Wham	203 Foster J
459 GOVT & POL-SOV RUSS					03.0 Cr ¹
Prereq: None; GSB 250 recommended					
3799	1	03.35-04.50	T Th	Pull	35 Chou I
462 GOVTS & POL-VIETNAM					03.0 Cr ¹
Prereq: None; GSB 250 recommended					
3800	1	12.00	M W F	Faner	1228 Turley W
464 GOVTS & POL-MIDEAST					03.0 Cr ¹
Prereq: None; GSB 250 recommended					
3801	1	02.00	M W F	Ag	152 Hardenbergh W
475A INTERNATIONAL LAW					03.0 Cr ¹
Prereq: None; GSB 270 recommended					
3802	1	03.00	M W F	Faner	3075 Jacobini H
494 HONORS RESEARCH					01.0 to 06.0 Cr
Prereq: Consent of instructor & chairman, B average in POLS					
3803	700	To be arranged			
501A METH EMPIRICAL RES					03.0 Cr
3804	1	11.00-12.15	M W	Faner	3075 Jones J
510 PROSEM-AM POLITICS					03.0 Cr
3805	1	03.00-04.15	T Th	Faner	3075 Luskin M
516 SEM-POLIT BEHAVIOR					03.0 Cr
Prereq: Basic courses, related training or consent of instr					
3806	1	12.35-01.50	W F	Faner	3113 Miller R
540 ADV PUBLIC ADMIN					02.0 Cr
3807	1	01.00-02.50	M	Faner	3075 Goodsell C
542 PLAN & BUDGET SYST					03.0 Cr
3808	1	07.00-09.30 pm	Th	H Ec	120 Ervin O

¹Elective Pass/Fail ²Mandatory Pass/Fail

569	TOP SEM-COMPAR POL	03.0 Cr
Prereq: Basic courses, related training or consent of instr		
3809	1 07.00-09.30 pm W H Ec 120 Paine J	
575	SEM-INTERNATL LAW	03.0 Cr
Prereq: 475a or consent of instructor		
3810	1 03.00 M W F Faner 3075 Jacobini J	
590	READINGS	01.0 to 06.0 Cr
Prereq: Consent of instructor		
3811	700 To be arranged	
591	INDIVIDUAL RESEARCH	01.0 to 06.0 Cr
Prereq: Consent of instructor		
3812	700 To be arranged	
593	SEM-TEACH POL SCI	02.0 Cr
3813	1 To be arranged Mason R	
595	INTERNSHIP-PUB AFF	01.0 to 06.0 Cr
Prereq: Consent of department		
3814	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
Prereq: Consent of instructor		
3815	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
3816	700 To be arranged	

Presidents Scholars (PRS)

251A	HONOR SEM-SCIENCES	01.0 to 08.0 Cr
Prereq: Consent of Presidents Scholar program		
3817	1 09.00 W Faner 2006 Klimstra W	
Topic Current Issues Natural Resource Utilization 1 Cr		
251B	HON SEM-SOCIAL SCI	01.0 to 08.0 Cr
Prereq: Consent of Presidents Scholar program		
3818	1 11.00 T Lib 103J Williford J	
Above sect- Techniques of Information Retrieval-1 Cr		
251C	HON SEM-HUMANITIES	01.0 to 08.0 Cr
Prereq: Consent of Presidents Scholar program		
3819	1 02.00 T Th Wham 301A Speck C	
Topic The Occult in Ancient, Medieval and Modern Lit		
299	HONORS PROJECT	01.0 to 15.0 Cr
Prereq: Consent of Presidents Scholar program		
3820	700 To be arranged	
351A	HONOR SEM-SCIENCES	01.0 to 09.0 Cr
Prereq: Consent of Presidents Scholar program		
3821	1 12.35-01.50 T Th Ag 222 Leasure K	
Alternative Systems in Agriculture		
3822	2 02.00 T Th H Ec 202 Brown D	
To be arranged		
Cons of Instr- PLATO: Computer & Academic Discip-3 Cr		
351B	HON SEM-SOCIAL SCI	01.0 to 09.0 Cr
Prereq: Consent of Presidents Scholar program		
3823	1 09.00 M W F Faner 1032	
Contemporary Economic Problems-3 Cr		
3824	2 02.00 T Th H Ec 202 Brown D	
Cons of Instr- PLATO: Computer & Academic Discip-3 Cr		
3825	3 03.00-04.50 T Th Nkrs A 278	
Social & Cultural Bkgrnd of Southern Illinois-3 Cr		
3826	4 06.00-09.00 pm W Nkrs A 278 Gold R	
Above sect- Human Conflicts in a Changing Society-3 Cr		
351C	HON SEM-HUMANITIES	01.0 to 09.0 Cr
Prereq: Consent of Presidents Scholar program		
3827	1 11.00-12.15 T Th Pull 215	
On Education-a Personal Encounter		
3828	2 02.00 T Th H Ec 202 Brown D	
Cons of Instr- PLATO: Computer & Academic Discip-3 Cr		
3829	3 03.00-04.50 Th H Ec 202 Johnson R	
Political Cartooning & Satire-2hr		
351E	HON SEM-HLTH & P.E.	01.0 to 04.0 Cr
Prereq: Consent of Presidents Scholar program		
3830	1 10.00-11.50 T Th Arena 555 Wilkinson J	
Techniques Of Self Defense-3 Cr		
399	HONORS PROJECT	01.0 to 15.0 Cr
Prereq: Consent of Presidents Scholar program		
3831	700 To be arranged	

Prereq: Consent of department and of Presidents Schol prog

3832 700 To be arranged

Psychology (PSYC)

101	DEV EFFECT RELATION	03.0 Cr
3864	1 01.00 F Lawson 201	
	01.00-02.50 M LS II 226	
Above section restricted to males		
3865	2 01.00 F Lawson 201	
	01.00-02.50 M Faner 2204	
Above section restricted to females		
3866	3 01.00 F Lawson 201	
	03.00-04.50 T Pull 119	
Above section restricted to males		
3867	4 01.00 F Lawson 201	
	03.00-04.50 T Faner 2206	
Above section restricted to females		
3868	5 01.00 F Lawson 201	
	03.00-04.50 W LS II 226	
Above section restricted to males		
3869	6 01.00 F Lawson 201	
	03.00-04.50 W Wham 301A	
Above section restricted to females		
211	RESEARCH METH-PSYC	04.0 Cr
Prereq: GSB 202		
3870	1 08.00 M W F Lawson 101 Meltzer D	
	08.00-09.50 T Pull 39	
3871	2 08.00 M W F Lawson 101 Meltzer D	
	08.00-09.50 Th Comm 1017	
3872	3 03.35-04.50 T Th Lawson 121 Radtke R	
	03.00-04.50 M Ag 152	
3873	4 03.35-04.50 T Th Lawson 121 Radtke R	
	03.00-04.50 W Ag 152	
301	CHILD PSYCHOLOGY	03.0 Cr ¹
Prereq: GSB 202		
3874	1 08.00-09.15 T Th Lawson 121 Mannarino A	
3875	2 02.00-03.15 T Th Lawson 231 Molfese D	
303	ADOLESCENT PSYC	03.0 Cr ¹
Prereq: GSB 202		
3876	1 09.35-10.50 T Th Lawson 121 Molfese V	
305	PSYC OF PERSONALITY	03.0 Cr ¹
Prereq: GSB 202		
3877	1 11.00-12.15 T Th Lawson 231	
3878	2 01.00 M W F Ag 166	
3879	3 01.00 M W F Ag 166	
Above section restr to PSYC majors		
307	SOCIAL PSYC	03.0 Cr ¹
Prereq: GSB 202		
3880	1 09.00 M W F Lawson 121 Mcneel S	
3881	2 11.00 M W F Ag 214 Mitchell T	
3882	3 03.35-04.50 T Th Lawson 201 Mcneel S	
309	PSYC OF LEARNING	03.0 Cr
Prereq: 211		
3883	1 09.35-10.50 T Th Lawson 201 Ehrenfreund D	
310	COGNITIVE PSYC	03.0 Cr
Prereq: GSB 202		
3884	1 02.00-03.15 T Th Wham 308 Pitz G	
311	EXP PSYC-LEARNING	03.0 Cr
Prereq: 309		
3885	1 08.00-09.50 T Th LS II 69 Meltzer D	
312	EXP PSYC-PERCEPTION	04.0 Cr
Prereq: 211		
3886	1 09.00 M W F LS II 430 Lit A	
	09.00-10.50 Th LS II 430	
314	EXPER PHYSIOL PSYC	03.0 Cr
Prereq: GSA 302, PSYC 211		
3887	1 10.00 M W LS II 69	
	10.00-11.50 F LS II 69	
316	EXP PSYC-SOCIAL	03.0 Cr
Prereq: 211, 307		
3888	1 03.00-04.50 M W Wham 328 Mckillip J	
320	INDUSTRIAL PSYC	03.0 Cr ¹
Prereq: GSB 202		
3889	1 01.00 M W F Lawson 231 Westberg W	

323 PSYC-EMPLOYEE RELAT					03.0 Cr ¹	
Prereq: GSB 202						
3890	1	03.35-04.50	T Th	Lawson	101	Westberg W
330 PSYC APPL-PERS ADJ					04.0 Cr	
Prereq: 6 hours of psychology or cons of instr						
3891	1	03.00-04.50	T	H Ec	206	Miller H
		03.00-04.50	Th	Tech A	208	
3892	2	03.00-04.50	T	H Ec	206	Miller H
		03.00-04.50	Th	Faner	2206	
3893	3	03.00-04.50	T	H Ec	206	Miller H
		03.00-04.50	Th	Ag	218	
3894	4	03.00-04.50	T	H Ec	206	Miller H
		03.00-04.50	Th	Tech A	122	
333 PSYCHOLOGY OF WOMEN					03.0 Cr ¹	
Prereq: GSB 202 or consent of instructor						
3895	1	09.35-10.50	T Th	Faner	1136	Gannon L
391 INDIVIDUAL STUDY					01.0 to 12.0 Cr ²	
Prereq: Consent of instructor						
3896	700	To be arranged				
392 INDIVIDUAL STUDY					01.0 to 12.0 Cr	
Prereq: Consent of instructor						
3897	700	To be arranged				
394 UGRAD PRACT-COL TCH					01.0 to 09.0 Cr	
Prereq: Senior psychology major and permission of instr						
3898	1	12.00-01.50	W	Pull	120	Carrier N
399 RES & INV-HONORS					01.0 to 09.0 Cr	
Prereq: Consent of instructor						
3899	1	01.00-02.50	Th	LS II	285D	Ehrenfreund D
Consent of the Department of Psychology is necessary for unclassified grad students to register for 400- and 500- level courses.						
404 THEORIES-PERCEPTION					03.0 Cr	
Prereq: 211 or consent of instr						
3900	1	02.00	M W F	LS II	285D	Lit A
407 THEORET ISSUES LRNG					03.0 Cr	
Prereq: 309 or equivalent						
3901	1	11.00-12.15	T Th	Pull	229	Mchese J
409 HIST & SYSTEMS-PSYC					03.0 Cr	
Prereq: Sr status						
3902	1	09.00	M W F	Ag	218	Mchese J
411 PRINCIPLES-TRAINING					03.0 Cr	
Prereq: 309						
3903	1	02.00	M W F	Pull	229	Schmeck R
415 PSYCHOPHARMACOLOGY					04.0 Cr	
Prereq: GSA 302, GSB 202						
3904	1	09.00-10.50	T Th	Pull	227	Baez L
431 PSYCHOPATHOLOGY					03.0 Cr ¹	
Prereq: 305 or cons of instr						
3905	1	11.00-12.15	T Th	Ag	214	Gannon L
3906	2	11.00-12.15	T Th	Ag	214	Gannon L
Above section restr to PSYC majors						
432 PSYCHOPATH-CHILDHD					03.0 Cr	
Prereq: 301, and 211 or GUID 422						
3907	1	03.35-04.50	T Th	Faner	1222	Odonnell J
440 THEORIES-PERSONALTY					03.0 Cr ¹	
Prereq: 305 or cons of instr						
3908	1	09.35-10.50	T Th	Ag	224	Schill T
451 ADVANCED CHILD PSYC					03.0 Cr	
Prereq: 211 and 301, or cons of instr						
3909	1	03.35-04.50	T Th	Faner	1230	Molfese D
461 ADV SOCIAL PSYC					03.0 Cr	
Prereq: 211,307						
3910	1	01.00	M W F	LS II	450	Mckillip J
489 SEM-SELECTED TOPICS					01.0 to 12.0 Cr	
Prereq: Cons of instr						
3911	1	To be arranged				
Physiological Psychology-this section for 2 credits .						
Consent of the Department of Psychology is necessary for unclassified grad students to register for 400- and 500- level courses.						

511 HUMAN LEARN & MEMOR						03.0 Cr
Prereq: Consent of instructor						
3912	1	08.00-09.15	T Th	Wham	212 Radtke R	
522A EXPER DESIGN & ANAL						04.0 Cr
Prereq: Math 111b or consent of instr						
3913	1	11.00	MT Th	LS II	285D Pitz G	
		10.00-11.50	F	LS II	285D Pitz G	
522C EXPER DESIGN & ANAL						03.0 Cr
Prereq: 522b						
3914	1	09.35-10.50	T Th	LS II	285D Ramanaiah N	
523 RES MTH-CLIN,COUNSL						02.0 Cr
Prereq: Psyc dept required statistical sequence						
3915	1	02.00-03.15	T Th	Faner	2061 Haynes S	
530A SYS-PERS,PSYCHOTHER						03.0 Cr
Prereq: Consent of instructor						
3916	1	09.00	M F	LS II	285D Harren,Rader,Schill	
534 BEHAVIOR THERAPY						03.0 Cr
Prereq: Grad stand in psyc dept-clinic/couns-or cons instr						
3917	1	11.00-12.15	T Th	Faner	2406 Haynes S	
538 THEO,PRAC-GRP FACIL						03.0 Cr
Prereq: Graduate status						
3918	1	11.00	M W F	Faner	3113 Harren & Moreland	
540 PSYC ASSESSMENT						03.0 Cr
Prereq: Psyc grad student or consent of instr						
3919	1	03.00-04.50	M W	Faner	2365 Odonnell & Schill	
542 PRIN,PRB-PER ASSESS						03.0 Cr
Prereq: Consent of instructor						
3920	1	03.35-04.50	T Th	Ag	220 Ramanaiah N	
547 APPRAISAL COUNSELNG						03.0 Cr
Prereq: 421 or consent of instructor						
3921	1	02.00-03.15	T Th	Faner	2373 Tinsley H	
548 VOC PSYC,CAREER DEV						03.0 Cr
Prereq: 547 or cons of instr						
3922	1	02.00	M W F	Faner	2373 Tinsley H	
551 ADV DEVEL PSYC I						03.0 Cr
Prereq: Cons of instr						
3923	1	10.00	M	LS II	285D Molfese V	
		09.00-10.50	W	LS II	285D	
560 SOCIAL PSYC PROSEM						03.0 Cr
Prereq: Permission of instr						
3924	1	09.00	M W F	Wham	307 Mitchell T	
585 ADVANCED SEMINAR						01.0 to 18.0 Cr
Prereq: Cons of instr						
3925	1	To be arranged			Schmeck R	
Above section for 3 credits						
3926	2	09.35-10.50	T Th	Nkrs C	410 Durlak J	
Above section for 3 credits						
3927	3	02.00-03.50	W	Pull	118 Rader & Bekker	
Above section for 2 credits						
3928	4	03.35-04.50	T Th	Faner	2512 Levitt R	
Above section for 3 credits						
590 READINGS IN PSYC						01.0 to 12.0 Cr
Prereq: Cons of instr						
3929	700	To be arranged				
593 RESEARCH IN PSYC						01.0 to 24.0 Cr
Prereq: Consent of instructor						
3930	700	To be arranged				
594E PRACT-CLINICAL PSYC						01.0 to 16.0 Cr
Prereq: Consent of instructor						
3931	1	01.00-03.15	Th	0481	202 Shoemaker D	
3932	2	01.00-02.50	F	Faner	2204 Ringuette E	
3933	3	01.00-02.50	F	Wham	301A Rader G	
3934	4	01.00-02.50	F	LS II	226 Rafferty J	
3935	5	01.00-02.50	F	0481	202 Durlak J	
3936	6	01.00-02.50	F	Wham	303 Bekker L	
3937	7	02.00-03.15	T	LS II	285D Odonnell & Schill	
594F PRACT-COUNSEL PSYC						01.0 to 16.0 Cr
Prereq: Consent of instructor						
3938	1	To be arranged			Harren V	

¹Elective Pass/Fail ²Mandatory Pass/Fail

3939	2	To be arranged			Moreland J
3940	3	10.00-11.50	M	Woody	1302 Snyder J
3941	4	01.00-03.50	M	Woody	1302 Snyder J
		01.00-02.50	F	Woody	1302
594L PRACT-TEACHING PSYC					
Prereq: Consent of instructor					
3942	1	12.00-01.50	W	Pull	120 Carrier N
595 INTERNSHIP					
Prereq: Psychology graduate student					
3943	700	To be arranged			
597 PREPROFESSION TRAIN					
Prereq: Psychology graduate student					
3944	700	To be arranged			
599 THESIS					
3945	700	To be arranged			
600 DISSERTATION					
3946	700	To be arranged			

Public Visual Communications (PVC)

500 INTRODUCTION TO PVC					
3947	1	07.30-10.00 pm	T	Comm	1046 Olson
510 RES PUB TELECOM PRO					
Prereq: 500					
3948	1	05.00-07.20	W	Comm	1021 Hildreth
530 INTERNAT TELECOMM					
Prereq: 500					
3949	1	05.00-07.20	Th	Comm	1122 Shipley
531 SEM-PHOTO COMMUNIC					
Prereq: 500					
3950	1	07.30-10.00 pm	W	Comm	1021 Zirpola
532 AUDIENCE COMM RES					
Prereq: 500					
3951	1	05.00-07.20	M	Comm	1021 Dybvig
541A SEM-HIST OF PHOTOG					
Prereq: 500					
3952	1	09.35-10.50	T Th	Comm	1121L Swedlund
542A SEM IN FILM HISTORY					
Prereq: 500					
3953	1	07.30-10.00 pm	Th	Comm	1021
572A MGT OF PHOTOG UNIT					
Prereq: 500					
3954	1	05.00-07.20	T	Comm	1122 Horrell C
591 INDIV STUDY IN PVC					
Prereq: 500					
3955	700	To be arranged			
597 PRODUCTION SEMINAR					
Prereq: 500 & 24 hrs completed grad work or cons-student com					
3956	700	To be arranged			
599 THESIS					
Prereq: 500, 589					
3957	700	To be arranged			

Radio-Television (R-T)

300M WRIT PERFORM PROD					
Prereq: Sophomore standing					
3958	1	11.00	T Th	Lawson	161 Olson
		08.00-09.50	M W	Comm	1015 Olson
3959	2	11.00	T Th	Lawson	161 Olson
		08.00-09.50	T Th	Comm	1015 Olson
3960	3	11.00	T Th	Lawson	161 Olson
		08.00-09.50	W F	Comm	1016 Olson
3961	4	11.00	T Th	Lawson	161 Olson
		12.00-01.50	M W	Comm	1015 Olson
3962	5	11.00	T Th	Lawson	161 Olson
		12.00-01.50	T Th	Comm	1016 Olson
3963	6	11.00	T Th	Lawson	161 Olson
		12.00-01.50	W F	Comm	1016 Olson
3964	7	11.00	T Th	Lawson	161 Olson
		02.00-03.50	M W	Comm	1015 Olson
3965	8	11.00	T Th	Lawson	161 Olson
		02.00-03.50	W F	Comm	1016 Olson
3966	9	11.00	T Th	Lawson	161 Olson
		02.00-03.50	M F	Comm	1016 Olson

3967	10	11.00	T Th	Lawson	161 Olson
		02.00-03.50	T Th	Comm	1015 Olson

300P R-T FOUND & PROGRAM

Prereq: Sophomore standing					
3968	1	10.00	MTWTh	Lawson	161 Lynch

305 BASIC COMM RESEARCH

Prereq: C in 300m and p					
3969	1	09.00	T Th	Comm	1046 Yoder

308 BROADCAST LAW & POL

Prereq: C in 300m and p					
3970	1	10.00	M W F	Comm	1046 Kurtz
3971	2	02.00	M W F	Comm	1046

310 R-T NEWS WRITING

Prereq: C in 300m and p;308					
3972	1	12.00	M W F	Comm	1022 Criswell
3973	2	03.00	M W F	Comm	1018 Brown

311 R-T NEWS REPORTING

Prereq: C in 300m and p;308 and 310					
3974	1	01.00	M W F	Comm	1017 Brown

325 SURVEY CABLE COMM

Prereq: C in 300m and p					
3975	1	11.00	M W F	Comm	1017 Shipley

340 PROD ANAL-MEDIA CRI

Prereq: C in 300m and p					
3976	1	09.00	M W F	Comm	1046
3977	2	11.00	M W F	Comm	1046 Terwische
3978	3	12.00	M W F	Comm	1046 Yoder
3979	4	01.00	M W F	Comm	1046 Shipley

351 PROGRAMS & AUDIENCE

Prereq: C in 300m and p					
3980	1	12.00	M W F	Lawson	121 Dybvig

360 R-T PERFORMANCES

Prereq: B in 300m, C in 300p; Speech 104					
To be arranged					
3981	1	10.00-11.50	M W	Comm	1015 Hildreth
To be arranged					
3982	2	10.00-11.50	T Th	Comm	1015 Shipley

363 INTERMED RADIO PROD

Prereq: C in 300m and p					
3983	1	10.00-11.50	T Th	Comm	1016 Garry
To be arranged					
3984	2	10.00-11.50	M W	Comm	1016 Garry
To be arranged					

365 TV STUDIO OPERATION

Prereq: C in 300m and p					
3985	1	05.00	W	Comm	1046 Mampre
To be arranged					

369 BASIC TV DIRECTING

Prereq: C in 300m and p;340 and 365					
3986	1	08.00-11.50	T	Comm	1065 Rochelle
3987	2	08.00-11.50	W	Comm	1065 Rochelle
3988	3	08.00-11.50	Th	Comm	1065 Rochelle
3989	4	08.00-11.50	M	Comm	1065 Rochelle

370 TV NEWSFILM PRODUCT

Prereq: C in 300m and p					
3990	1	02.00-03.50	M	Comm	1022 Ryan
		02.00-03.50	Th	Comm	1022 Ryan
To be arranged					

3991	2	02.00-03.50	M	Comm	1022 Ryan
		02.00-03.50	W	Comm	1022 Ryan

3992	3	02.00-03.50	M	Comm	1022 Ryan
		02.00-03.50	F	Comm	1022 Ryan

To be arranged

371 GRAPHICS FOR TV

Prereq: C or better in 300m and 300p					
3993	1	04.00	M W	Comm	1015 Walker

377 R-T ADVER AND SALES

Prereq: C in 300m and p, and in 351					
3994	1	08.00	M W F	Comm	1046 Dybvig
3995	2	08.00-09.15	T Th	Comm	2012 Dybvig

383 BASIC R-T WRITING

Prereq: C in 300m and p; 340					
3996	1	11.00-12.50	T Th	Comm	1046 Terwische
3997	2	01.00-02.50	T Th	Comm	1046 Yoder

04.0 Cr

02.0 Cr

03.0 Cr

03.0 Cr

03.0 Cr

03.0 Cr

03.0 Cr

03.0 Cr

04.0 Cr

03.0 Cr

02.0 Cr

02.0 Cr

03.0 Cr

02.0 Cr

03.0 Cr

03.0 Cr

384 RADIO-TV PRACTICUM		01.0 to 02.0 Cr²	
Prereq: C in 300m and p, and consent of instructor			
998	1 05.00	M	Comm 1046 Rochelle
To be arranged			
390 OPERATIONS & MGT		04.0 Cr	
Prereq: C in 300m and p; 308, 351 & 377			
999	1 03.00	MTWTh	Comm 1046 Kurtz
391 INDEPENDENT STUDY		01.0 to 02.0 Cr	
Prereq: C in 300m and p; consent of instructor			
000	700	To be arranged	
393 RADIO, TV & SOCIETY		03.0 Cr	
Prereq: C in 300m & p; completion of 90 hours			
4001	1 10.00	M W F	Comm 1022 Ryan
4002	2 01.00	M W F	Comm 1022
395 INTERNSHIP PROGRAM		02.0 to 04.0 Cr	
Prereq: Jr status, 3.0 or better avg in maj, & sel comm cons			
4003	700	To be arranged	
430 PUB AFF & R-T ESTAB		02.0 Cr	
Prereq: C grade in 300m and 300p			
4004	1 10.00	T Th	Comm 1046 Yoder
453 PUBLIC BROADCASTING		02.0 Cr	
Prereq: C grade in 300m and 300p; 308			
4005	1 04.00	T Th	Comm 1046 Rochelle
470 DOCUMENT FILM PROD		03.0 Cr²	
Prereq: C in 300m, p & 370 or C in C&P355, 356 & instr cons			
4006	1 07.30-09.50 pm	M	Comm 1022
To be arranged			
483 ADVANCE R-T WRITING		03.0 Cr	
Prereq: C grade in 300m, 300p and 383; 340			
4007	1 09.35-10.50	T Th	Comm 2012 Terwische
491 INDEPENDENT STUDY		03.0 Cr	
Prereq: C grade in 300m and 300p and consent of instructor			
4008	700	To be arranged	

Recreation (REC)

300 INTRO-LEISURE & REC						03.0 Cr
4011	1	08.00	M W F	Wham	112	
4012	2	12.35-01.50	T Th	Wham	112	
305 REC PROG & LDRSH						03.0 Cr
Prereq: Must be taken concurrently with 300						
4013	1	09.35-10.50	T Th	Wham	206	
4014	2	10.00	M W F	Wham	203	
310A REC SKL-SOC REC						02.0 Cr
Prereq: 300, 305 and 315						
4015	1	12.00	M W	Wham	203	
310B REC SKL-DRAMATICS						02.0 Cr
Prereq: 300, 305 and 315						
4016	1	04.00	T Th	Wham	321	
310C REC SKL-LEISURECRFT						02.0 Cr
Prereq: 300, 305 and 315						
4017	1	08.00-10.00	T	Pull I	14	
4018	2	08.00-10.00	Th	Pull I	14	
310D REC SKL-MUS & DANCE						02.0 Cr
Prereq: 300, 305 and 315						
4019	1	03.00	T Th	Pull	208	
310F REC SKL-PLAYGRD ACT						02.0 Cr
Prereq: 300, 305 and 315						
4020	1	03.00-04.50	M	Wham	321	
315 REC FOR SPEC GROUPS						03.0 Cr
Prereq: Concurrent enrollment in 300 and/or 305						
4021	1	08.00-09.15	T Th	Wham	206	
4022	2	11.00	M W F	Wham	112	
340A ACT-MENTAL RETARDED						01.0 Cr
Prereq: 300, 305 and 315						
4023	1	10.00	M	Wham	319	Freeberg
340C ACT-PHYS HANDICAPP						01.0 Cr
Prereq: 300, 305 and 315						
4024	1	10.00	F	Wham	319	
340E REC ACTIV PRISONS						01.0 Cr
Prereq: 300, 305 and 315						
4025	1	10.00	W	Wham	319	Freeberg

¹Elective Pass/Fail ²Mandatory Pass/Fail

350B REC WKSHP-PUPPETRY		01.0 Cr	
Prereq: 300, 305 and 315			
4026	1 04.00	W	Wham 203 Taylor L
350F WKSHP-TEEN CENTERS		01.0 Cr	
Prereq: 300, 305 and 315			
4027	1 08.00	F	Pull 35
365 PARK & REC ADMINIS		03.0 Cr	
Prereq: 300, 305 and 315			
4028	1 09.35-10.50	T Th	Ag 150 Obrien W
4029	2 11.00	M W F	Wham 319 Smith D
375 COMMERCIAL REC MGT		02.0 Cr	
Prereq: 300, 305 and 315			
4030	1 09.00	M W	Wham 317 Smith O
380A FLD WRK-PARK & COMM		01.0 to 06.0 Cr	
4031	1	To be arranged Abernathy W	
380B FLD WRK-SPECIAL POP		01.0 to 06.0 Cr	
4032	1	To be arranged Freeberg W	
385 BASIC RES,READ-REC		01.0 to 02.0 Cr	
Prereq: 300, 305 and 315			
4033	1	To be arranged	
401 ENVIRONMENT EDUCAT		03.0 Cr	
4034	1 09.00-11.50	Th	Ag 225 Yambert P
423 ENVIRONMENT INTERP		03.0 Cr	
4035	1 02.00	M	Ag 144 Yambert P
	02.00-04.50	W	Ag 144
460 COMM,INST REC-S POP		03.0 Cr	
Prereq: 300, 305 and 315			
4036	1 03.00	M W F	Wham 319 Freeberg W
485 PRACT IN OUTDOOR ED		02.0 to 12.0 Cr	
Prereq: Consent of the instructor			
4037	1	To be arranged	
490A INTERN-PARK & COMM		02.0 to 12.0 Cr	
Prereq: 16 hours of recreation and consent of instructor			
4038	1	To be arranged Abernathy W	
490B INTERN-SPEC POPULAT		02.0 to 12.0 Cr	
Prereq: 16 hours of recreation and consent of instructor			
4039	1	To be arranged Freeberg W	
500 PRINCIPLES OF REC		03.0 Cr	
4040	1 06.30-09.00 pm	M	Wham 321 Loveland N
520 PARK & REC MGT		03.0 Cr	
Prereq: 500 or concurrent enrollment or consent of instr			
4041	1 06.30-09.00 pm	T	Wham 326 Smith O
540 PLAN OUTDOOR AREAS		03.0 Cr	
Prereq: 500 or consent of instructor			
4042	1 06.30-09.00 pm	M	Wham 312 Taylor L
550 RESEARCH IN REC		03.0 Cr	
Prereq: 530			
4043	1 06.30-09.00 pm	W	Wham 321 Freeberg W
565 SEM-ENVR,OUTDOOR ED		03.0 Cr	
Prereq: Consent of instructor			
4044	1 06.30-09.00 pm	Th	Wham 329
570 SEMINAR IN REC MGT		03.0 Cr	
Prereq: 520 and 530			
4045	1 06.30-09.00 pm	T	Wham 321 Mcewen D
575 INDIVIDUAL RESEARCH		01.0 to 06.0 Cr	
Prereq: Consent of instructor			
4046	700	To be arranged	
580 READ-LEISURE & REC		01.0 to 06.0 Cr	
Prereq: Consent of instructor			
4047	700	To be arranged	
596 FIELD WORK IN REC		01.0 to 06.0 Cr	
Prereq: Major in recreation and permission of the department			
4048	700	To be arranged	
599 THESIS		01.0 to 03.0 Cr	
Prereq: Consent of the department			
4049	700	To be arranged	

Rehabilitation (REHB)

400 INTRO TO REHAB		02.0 to 03.0 Cr	
4050	1 08.00-09.30	M W	Cl 326 Craig K

4051	2	04.00-05.30	M W	Cl	326	Vieceli L	
4052	3	06.00-09.00 pm	M	Pull	215	Lee R	
402 HUMAN DEVEL & BEHAV							02.0 Cr
4053	1	01.00-02.50	W	Pull	39	Bryson S	
406 INTRO TO BEHAV MOD							03.0 Cr
4054	1	09.00	M W F	Wham	308	Poppen R	
409 SCI METH-BEHV ANALY							03.0 Cr
Prereq: Consent of department							
4055	1	04.00	M	Wham	301B	Cuvo A	
		03.00-05.00	F	Cl	326		
421 VOC DEVEL & PLACE							03.0 Cr
Prereq: 400 or 501							
4056	1	06.00-09.00 pm	Th	Cl	109	Lorenz & Vieceli	
425 DEV EMPLOY OPPORTUN							01.0 to 06.0 Cr
Prereq: Special standing & consent of instructor							
4057	1	To be arranged					Vieceli L
431 ASSESS PROC IN REHB							03.0 Cr
4058	1	01.00	M F	Cl	326	Gardner M	
To be arranged							
One additional meeting							
4059	2	01.00	M F	Cl	326	Gardner M	
To be arranged							
One additional meeting							
4060	3	01.00	M F	Cl	326	Gardner M	
To be arranged							
One additional meeting							
4061	4	06.00-09.00 pm	M	Pull	37	Bradshaw H	
436 VOC EVAL & ADJUSTMT							03.0 to 04.0 Cr
4062	1	06.00-09.00 pm	W	Pull	310	Lorenz J	
445A REHB SERVICES-AGING							02.0 Cr
Prereq: Consent of instructor							
4063	1	02.00-03.50	W	Cl	326		
Gardner,Hawley,Bende							
445D REHB SERV-EMOT DIST							02.0 Cr
Prereq: Consent of instructor							
4064	1	06.00-08.00 pm	M	Cl	326	Shumacher B	
445F REHB SER-JUV OFFEND							02.0 Cr
Prereq: Consent of instructor							
4065	1	10.00-12.00	M	Cl	326	Grenfell J	
445H SER-PHYS HANDICAP							02.0 Cr
Prereq: Consent of instructor							
4066	1	08.00-09.50	Th	Cl	326		
445I REHB SER-PUB OFFEND							02.0 Cr
Prereq: Consent of instructor							
4067	1	10.00-11.50	W	Cl	326	Robinson	
451 GENERL REHB COUNSEL							04.0 Cr
4068	1	03.00-04.50	M W	Wham	303	Renzaglia G	
4069	2	05.45-09.15	Th	Wham	301B	Bender E	
4070	3	05.45-09.15	M	Cl	328	Grenfell J	
479 TECH WRITING-REHAB							00.0 to 02.0 Cr
4071	1	03.00-05.00	Th	Wham	301B		
490 READINGS IN REHAB							01.0 to 03.0 Cr
Prereq: Consent of instructor							
4072	700	To be arranged					
494 WORK EXPER IN REHAB							01.0 to 12.0 Cr ¹
Prereq: Consent of department							
4073	700	To be arranged					
501 REHAB FOUNDATIONS							02.0 Cr
Prereq: Consent of the instructor							
4074	201	To be arranged					Allen
Above section meets 8/22-10/12							
4075	202	To be arranged					Allen
Above section meets 10/13-12/9							
4076	203	08.00-12.00	M	Cl	334	Allen	
Above section meets 8/22-10/12							
4077	204	08.00-12.00	T	Cl	334	Allen	
Above section meets 8/23-10/12							
4078	205	08.00-12.00	W	Cl	334	Allen	
Above section meets 8/24-10/12							
4079	206	08.00-12.00	W	Cl	334	Allen	
Above section meets 10/13-12/9							
4080	207	06.00-10.00 pm	W	Cl	334	Allen	
Above section meets 8/24-10/12							

4081	208	06.00-09.50 pm	W	Cl	334	Allen	
Above section meets 10/13-12/9							
503 BASIC BEHAV ANALY							03.0 Cr
Prereq: Consent of department							
4082	1	To be arranged				Sanders R	
523 JOB RESTRUC-HANDICP							03.0 Cr
Prereq: 421 and consent of instructor							
4083	1	06.00-09.00 pm	T	Wham	326		
533 VOCATION APPRAISAL							02.0 Cr
Prereq: Consent of instructor							
4084	1	03.00-05.00	M	0695	220	McDonald A	
543 CHILD BEHAVIOR							03.0 Cr
Prereq: Consent of instructor							
4085	1	02.30-04.00	M W	Faner	2406		
554 BEHAVIOR THERAPY							03.0 Cr
Prereq: Consent of instructor							
4086	1	03.35-04.50	T Th	Cl	334	Poppen R	
570 REHB ADMINISTRATION							03.0 Cr
Prereq: Consent of instructor							
4087	1	06.00-09.00 pm	T	Wham	201	Robinson W	
573 PROG,BUDG,COMM RESR							02.0 to 03.0 Cr
Prereq: Consent of instructor							
4088	1	09.00-12.00	S	Wham	205	Hawley & Lee	
576 DEV,SUPERV-REHB EMP							03.0 Cr
Prereq: Consent of instructor							
4089	1	06.00-09.00 pm	M	Cl	109	Craig K	
582 SEM-REHAB SERVICES							01.0 to 04.0 Cr
Prereq: Consent of instructor							
4090	1	06.00-09.00 pm	M	Cl	323	Robinson W	
584 SEM-BEHAVIOR MOD							01.0 to 04.0 Cr
Prereq: Consent of instructor							
4091	1	06.30-08.00 pm	W	Cl	328	Cuvo A	
585 SEM-COUNS/COORD SER							01.0 to 04.0 Cr
Prereq: Consent of instructor							
4092	1	02.00-03.50	M	Cl	326	Bryson S	
591 INDEP PROJECTS-REHB							01.0 to 06.0 Cr
Prereq: Consent of instructor							
4093	700	To be arranged					
593 RESEARCH IN REHAB							01.0 to 06.0 Cr
Prereq: Consent of instructor							
4094	1	09.00-10.50	T	Cl	326	Hawley I	
		10.00	Th	Cl	326		
4095	700	To be arranged					
594A PRACT IN REHB-ADMIN							01.0 to 12.0 Cr
Prereq: Consent of dept							
4096	700	To be arranged					
594B PRACT-BEHAV MODIFIC							01.0 to 12.0 Cr
Prereq: Consent of dept							
4097	700	To be arranged					
594C PRACT IN REHB COUNS							01.0 to 12.0 Cr
Prereq: Consent of dept							
4098	700	To be arranged					
595 INTERNSHIP IN REHAB							01.0 to 12.0 Cr
Prereq: 594 and consent of department							
4099	700	To be arranged					
599 THESIS							01.0 to 06.0 Cr
Prereq: Consent of instructor							
4100	700	To be arranged					

Religious Studies (RELS)

302		CONTEMP W REL THGT			03.0	Cr	
4103	1	08.00-09.15	T Th	Faner	3113	Bengtson D	
320A		BIBLE STU-OLD TEST			03.0	Cr ¹	
4104	1	09.35-10.50	T Th	Faner	2367	Hayward J	
340		PSYC OF RELIGION			04.0	Cr ¹	
4105	1	11.00-12.50	M W	Faner	2206	Hutch R	
353		SOC ETH-MOD SOCIETY			04.0	Cr	
4106	1	02.00-03.50	T Th	Faner	2010	Lemert C	
360		REL NARRAT & DRAMA			04.0	Cr	
4107	1	01.00-02.50	M W	Faner	3412	Hayward J	

Prereq: Consent of instructor

108	1	02.00-05.00	W	Faner	3113	Bengtson & Hutch
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496 HONORS READINGS-REL

01.0 to 06.0 Cr

Prereq: Consent of department

109 700 To be arranged

Russian (RUSS)**136A ELEMENTARY RUSSIAN**04.0 Cr¹

110	1	11.00	MT Th F	Faner	2365	Orechwa O
111	2	02.00	MTWTh	Faner	2079	

201A INTERMEDIATE RUSS04.0 Cr¹

Prereq: 136 or 2 yrs of high school Russian or equivalent

112	1	09.00	MTWTh	Faner	2079	Orechwa O
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278A TRANSLATION TECHNIQ03.0 Cr¹

Prereq: 136b or 2 yrs of high school Russian or equivalent

113	1	11.00	M W F	Faner	2373	Kupcek J
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305 ADV CONVER & COMP04.0 Cr¹

Prereq: 201 or equivalent

114	1	10.00	MT Th F	Faner	2373	Kupcek J
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306 INTER READINGS-RUSS03.0 Cr¹

Prereq: 201 or equivalent

115	1	01.00	M W F	Faner	2205	Orechwa O
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415 RUSS LING STRUCTURE03.0 Cr¹

116 1 To be arranged

430 BUSINESS RUSSIAN04.0 Cr¹

Prereq: 201, or 278, or equivalent

117	1	09.00	T Th	Faner	2061	Kupcek J
		09.00	M F	Faner	2206	

School of Technical Careers (STC)**101 BUSINESS CORRESPOND**

02.0 Cr

118	1	11.00	M W	Faner	1222	Hertz V
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102 TECHNICAL WRITING

02.0 Cr

119	1	09.00	M W	Pull	208	Hertz V
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120	2	09.00	T Th	F1	107	Hertz V
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121	3	11.00	T Th	F1	107	Hertz V
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122	4	12.00	T Th	F1	107	Hertz V
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Above sect to Commercial Graphics students

123	5	01.00	M W	F1	107	Hertz V
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124	6	02.00	M W	F1	107	Hertz V
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103 FUNDAMENT OF MATH

02.0 Cr

125	1	12.00	M W F	Dorm I	100	
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126	2	12.00	M W F	Pull	41	
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127	850	To be arranged		Rahmp	Smith D	
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104 BUSINESS MATH

02.0 Cr

128	1	11.00	M W	Faner	1028	
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129	2	11.00	T Th	Faner	1028	
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105A TECHNICAL MATH

02.0 Cr

Prereq: One year of high school algebra or STC 103

130	1	08.00	T Th	Avtech	116	
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131	201	08.00	MT Th F	Pull	208	
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Above sect meets 8/22-10/12

132	202	08.00	MT Th F	Pull	215	
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Above sect meets 8/22-10/12

133	203	08.00-09.50	T Th	Dorm I	101	
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Above section meets 8/23-10/11

134	204	11.00	MT Th F	Dorm I	101	
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Above section meets 8/22-10/12

135	205	01.00	MT Th F	Dorm I	101	
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Above section meets 8/22-10/12

136	206	03.00	MT Th F	Pull	215	
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Above section meets 8/22-10/12

137	207	03.00	MT Th F	Ag	144	
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Above section meets 8/22-10/12

105B TECHNICAL MATH

02.0 Cr

Prereq: 105a

138	201	08.00	MT Th F	Pull	208	
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Above section meets 10/13-12/9

139	202	08.00	MT Th F	Pull	215	
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Above section meets 10/13-12/9

140	203	08.00-09.50	T Th	Dorm I	101	
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Above section meets 10/13-12/9

141	204	11.00	MT Th F	Dorm I	101	
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Above section meets 10/13-12/9

4142	205	01.00	MT Th F	Dorm I	101	
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Above section meets 10/13-12/9

4143	206	03.00	MT Th F	Pull	215	
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Above section meets 10/13-12/9

4144	207	03.00	MT Th F	Ag	144	
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Above section meets 10/13-12/9

107A APPLIED PHYSICS

02.0 Cr

Prereq: High school algebra or 103

4145	201	08.00	M WTh	Pull	227	
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08.00-09.50 T

				Pull	118	
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Above section meets 8/22-10/12

4146	202	02.00	MTWTh	Dorm I	101	
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03.00 W

				Dorm I	101	
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Above section meets 8/22-10/12

107B APPLIED PHYSICS

02.0 Cr

Prereq: High school algebra or 103

4147	201	08.00	M WTh	Pull	227	
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08.00-09.50 T

				Pull	118	
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Above section meets 10/13-12/9

4148	202	02.00	MTWTh	Dorm I	101	
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03.00 W

				Dorm I	101	
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Above section meets 10/13-12/9

115A INTRO CHEM-INORGAN

02.0 Cr

4149	201	09.00	M W F	F3	144	
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09.00-10.50 W

				F3	144	
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Above section meets 8/22-10/12

4150	202	12.35-01.50	M F	Dorm I	101	
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12.00-01.50 W

				F3	144	
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Above section meets 8/22-10/12

4151	203	12.35-01.50	M F	Dorm I	101	
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12.00-01.50 W

				F3	144	
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Above section meets 8/22-10/12

4152	204	12.35-01.50	M F	Dorm I	100	
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12.00-01.50 T

				F3	144	
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Above section meets 8/22-10/12

4153	850	To be arranged		Rahmp	Smith D	
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115B INTRO CHEM-BIOLOGIC

03.0 Cr

Prereq: 115a

4154	201	01.00-02.50	M F	Dorm I	101	
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12.00-01.50 Th

				F3	144	
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Above section meets 10/13-12/9

4155	202	01.00-02.50	M F	Dorm I	100	
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12.00-01.50 W

				F3	144	
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Above section meets 10/13-12/9

4156	203	01.00-02.50	M F	Dorm I	100	
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12.00-01.50 T

				F3	144	
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Above section meets 10/13-12/9

141 INTRO PHSL&HUM ANAT

03.0 Cr

4157	1	08.00	MTWTh	Pull	35	
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4158	850	To be arranged		Rahmp	Smith D	
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153A ORAL REPORTING

02.0 Cr

4159	1	09.00	M W	F1	109	Workun A
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2 10.00 T Th

4160	3	11.00	M W	Ag	220	
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4 02.00 T Th

4161	2	11.00	M W	Dorm I	100	
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4 02.00 T Th

4162	4	02.00	T Th	F1	107	Workun A
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153B CONFERENCE METHODS

02.0 Cr

4163	1	09.00	T Th	Ag	170	Workun A
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2 12.00 T Th

4164	2	12.00	T Th	F1	111	Workun A
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3 02.00 M W

4165	3	02.00	M W	F1	111	Workun A
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199 INDIVIDUAL STUDY

01.0 to 10.0 Cr

Prereq: Sponsor, prog supervis & divisn chairman approval

4166	700	To be arranged				
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200 PRIMARY FLIGHT THEO

02.0 Cr

4167	1	12.00	M W F	Flight	17	Ketring J
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4168	2	04.00	M W F	Flight	17	Ketring J
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201 FLIGHT-PRIMARY

02.0 Cr

4169	1	To be arranged			Ketring J	
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202 FLT-BASIC,INT THEOR

02.0 Cr

4170	1	05.00	M W	Flight	17	Ketring
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203 FLIGHT-BASIC

01.0 Cr

4171	1	To be arranged			Ketring J	
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204 FLIGHT-INTERMEDIATE

01.0 Cr

41

205 FLIGHT-INSTRUM THEO		02.0 Cr
4173	1 05.00 T Th Flight 17 Ketring J	
206 FLT-INSTRUM & ADVAN		02.0 Cr
4174	1 To be arranged Ketring J	
207 FLT-MULTI-ENG OPER		01.0 Cr
4175	1 To be arranged Ketring J	
210A JOB ORIENT & ANALY		02.0 Cr
4176	850 To be arranged Rahmp Smith D	
215A DRAFTING GRAPHICS		03.0 Cr
Prereq: Concurrent enrollment in ID 231		
4177	1 08.00-10.50 W F Tech A 307	
4178	2 08.00-10.50 M W Tech A 219	
4179	3 12.00-02.50 W F Tech A 307	
4180	4 12.00-02.50 W F Tech A 219	
215B DRAFTING GRAPHICS		03.0 Cr
Prereq: 215a		
4181	1 08.00-10.50 M F Tech A 207	
299 INDIVIDUAL STUDY		01.0 to 16.0 Cr
Prereq: Sponsor, prog superv & division chairman approval		
4182	700 To be arranged	
300 FLT-INSTR(AIRPLANE)		02.0 Cr
4183	1 To be arranged Ketring J	
301 FLT-INS(AIRPLN-M-E)		01.0 Cr
4184	1 To be arranged Ketring J	
302 FLT-INS(AIRPLN-INS)		01.0 Cr
4185	1 To be arranged Ketring J	
319 OCCUPAT INTERNSHIP		01.0 to 15.0 Cr ²
4186	700 To be arranged	
320 WORK STUDY INTERNSP		01.0 to 10.0 Cr ²
4187	700 To be arranged	
321 SEM IN TECH CAREERS		03.0 Cr
4188	1 12.35-01.50 T Th Nkrs A 278	
350 TECH CAREER SUBJECT		01.0 Cr
Prereq: Consent of instructor		
4189	201 03.00-04.50 W Faner 2367	
Above section meets 10/13-12/9		
4190	700 To be arranged	
371 REG OF AIR TRANSPOR		03.0 Cr
4191	1 06.30-09.00 pm M Tech A 308	
400 FLT-AIR TRANS PILOT		01.0 Cr
4192	1 To be arranged Ketring J	
421 PRE-PROF SEMINAR		03.0 Cr ¹
Prereq: Enrollment in STC baccalaureate prog or inst consent		
4193	1 03.35-04.50 T Th Pull 229	

Science College (SCI)

258 WORK EXPER CREDIT		02.0 to 08.0 Cr
4194	700 To be arranged	
500 SCIENCE INF SOURCES		02.0 Cr
Prereq: Permission of the instructor		
4195	1 02.00-03.50 W Lib 551 Black G	

Secretarial and Office Specialities (SCR)

101A TYPEWRITING		02.5 Cr
4196	1 09.00 M Cl 21	
To be arranged		
Additional meeting times in Learning Center		
4197	2 10.00 M W F Cl 21	
4198	3 11.00 W Cl 21	
To be arranged		
Additional meeting times in Learning Center		
4199	4 02.00 M Cl 21	
To be arranged		
Additional meeting times in Learning Center		
101B TYPEWRITING		02.5 Cr
Prereq: 101a		
4200	1 09.00 F Cl 21	
To be arranged		
Additional meeting times in Learning Center		
4201	2 02.00 F Cl 21	
To be arranged		
Additional meeting times in Learning Center		

101C TYPEWRITING		02.5 Cr
Prereq: 101b		
4202	1 09.00 W Cl 21	
To be arranged		
Additional meeting times in Learning Center		
4203	2 02.00 W Cl 21	
To be arranged		
Additional meeting times in Learning Center		
101D TYPEWRITING		02.5 Cr
Prereq: 101c		
4204	1 09.00 W Cl 21	
To be arranged		
Additional meeting times in Learning Center		
4205	2 02.00 W Cl 21	
To be arranged		
Additional meeting times in Learning Center		
102A GREGG SHORTHAND		02.5 Cr
4206	1 10.00 T Th 0721 110	
To be arranged		
Additional meeting times in Learning Center		
4207	2 02.00 T Th 0721 110 Greathouse L	
To be arranged		
Additional meeting times in Learning Center		
102B GREGG SHORTHAND		02.5 Cr
Prereq: 102a		
4208	1 10.00 T Th 0721 110	
To be arranged		
Additional meeting times in Learning Center		
4209	2 12.00 T Th Cl 21	
To be arranged		
Additional meeting times in Learning Center		
4210	3 02.00 T Th 0721 110	
To be arranged		
Additional meeting times in Learning Center		
102C GREGG SHORTHAND		02.5 Cr
Prereq: 102b		
4211	1 10.00 T Th Cl 21	
To be arranged		
Additional meeting times in Learning Center		
102D GREGG SHORTHAND		02.5 Cr
Prereq: 102c		
4212	1 10.00 T Th Cl 21	
To be arranged		
Additional meeting times in Learning Center		
103A MACHINE SHORTHAND		02.5 Cr
4213	1 10.00 M W F 0721 110 Miriani T	
4214	2 01.00 M W F 0721 110	
103B MACHINE SHORTHAND		02.5 Cr
4215	1 10.00 M W F 0721 110 Miriani T	
4216	2 01.00 M W F 0721 110 Miriani T	
104 INTRO-MACH TRNSCRPT		03.5 Cr
4217	1 11.00 T Th 0721 110	
To be arranged		
Additional meeting times in Learning Center		
4218	2 12.00 T Th 0721 110	
To be arranged		
Additional meeting times in Learning Center		
106 REPROGRAPHICS		01.0 Cr
4219	1 11.00 M 0721 110	
4220	2 01.00 T 0721 110	
107 FILING		02.0 Cr
4221	1 09.00 T Th 0721 110 Richey	
Additional meeting times in Learning Center		
4222	2 12.00 M W 0721 110	
Additional meeting times in Learning Center		
109 CALCULATING MACHINE		03.0 Cr
4223	1 09.00 Th 0721 109	
To be arranged		
Additional meeting times in Learning Center		
4224	2 01.00 Th 0721 109	
To be arranged		
Additional meeting times in Learning Center		
201 COOP SECRETAR EXPR		02.0 to 08.0 Cr
4225	1 06.30-08.30 pm T Cl 21	
4226	2 06.30-08.30 pm T Cl 21	
To be arranged		
Additional meeting times		

205	OFFICE MGT&SUPERVIS	02.0 Cr
227	1 12.00 T Th 0721 109	
208	APP LAW-TECH CAREER	03.0 Cr
228	1 03.00 M W F 0721 109	
209	APPLIED LAW II	03.0 Cr
Prereq: 208 recommended		
229	1 03.00-04.50 T Th 0721 109	
211	MEDICAL TYPEWRITING	03.0 Cr
230	1 01.00 W Cl 21	
To be arranged		
Additional meeting times in Learning Center		
212A	MEDIC TERM/SHORTHND	03.0 Cr
231	1 01.00 T Th F 0721 109	
232	2 03.00 M W F Cl 21	
221	LEGAL TYPEWRITING	03.0 Cr
233	1 01.00 M Cl 21	
To be arranged		
Additional meeting times in Learning Center		
222A	LEGAL TERM/SHORTHND	03.0 Cr
234	1 11.00 MT Th Cl 21	
235	2 02.00 M W F 0721 110	
231	EXECUTIVE TYPEWRIT	03.0 Cr
236	1 11.00 W 0721 110	
To be arranged		
Additional meeting times in Learning Center		
232	ADVANCED SHORTHAND	03.0 Cr
237	1 12.00 M W F Cl 21	
233	SEC OFFICE PROCED	03.0 Cr
238	1 10.00 M W F 0721 109	

Social Welfare (SW)

375	SW AS A SOC INSTIT	03.0 Cr
4239	1 09.35-10.50 T Th Ag 102 Brown T	
383	INTRO INTERVIEWING	03.0 Cr
4240	1 09.00 M W F H Ec 202 Brown F	
Above sect restr to Social Welfare majors only		
4241	2 10.00 M W F Pull 227 Walker P	
Above sect restr to Social Welfare majors only		
4242	3 11.00 M W F Pull 227 Brown F	
Above sect restr to non- Social Welfare majors only		
391	SOC SERV & MIN GRPS	02.0 Cr
Prereq: 375		
4243	1 03.00-04.50 W Pull 39 Wesley	
Crosslisted with BAS 391		
396	READINGS IN SOC WEL	01.0 to 03.0 Cr
Prereq: Consent of instructor		
4244	700 To be arranged	
401	PROC-SW (CASEWORK)	04.0 Cr
Prereq: 375		
4245	1 10.00-11.50 T Th Park 204 Brown F	
4246	2 10.00-11.50 M W H Ec 206 Brelje M	
402	SOCIAL GROUP WORK	03.0 Cr
Prereq: 375		
4247	1 02.00 M Pull 227 Brown T	
	02.00-03.50 W Pull 227	
4248	2 06.00-08.40 pm Th H Ec 118 Rosen A	
404	INTEGR METH SOC WRK	03.0 Cr
Prereq: 441, 442 or concurrently with 442		
4249	1 09.35-10.50 T Th Wham 321 Walker P	
4250	2 02.00-03.15 T Th Faner 1030 Brown	
411	METHODS SOCIAL RES	03.0 Cr
Prereq: 375		
4251	1 09.00-10.50 W H Ec 208 Auerbach A	
	09.00 F H Ec 208	
4252	2 06.00-07.25 pm M W Wham 302 Smith S	
416	HUM BEHAV,SOC ENVIR	03.0 Cr
Prereq: 375 & 1 appr up div crs- PSYC,SOC,POLS.HUMR maj only		
4253	1 09.35-10.50 T Th H Ec 102 Auerbach A	
4254	2 11.00-12.15 T Th H Ec 102 Walker P	
421	SEM-PROBS & ISSUES	03.0 Cr
Prereq: 401, 402, 441, 442 or concurrently with 442		
4255	1 11.00-12.15 T Th Wham 319 Wesley R	

Elective Pass/Fail ²Mandatory Pass/Fail

4256	2 02.00-03.15 T Th Wham 203 Wesley R	
426	COMPAR SOC WEL SYS	02.0 Cr
Prereq: 375		
4257	1 03.35-05.25 Th H Ec 120 Auerbach A	
441	SOC WORK-SEL AGENCY	07.5 Cr ²
Prereq: 401 & 402 & consent of instr		
4258	1 To be arranged	Handler E
442	ADV FIELD PRACTICUM	07.5 Cr ²
Prereq: 441 & consent of instructor		
4259	1 To be arranged	Handler E
461	CHLD,FAMILY SERVICE	02.0 Cr ¹
Prereq: Consent of instructor		
4260	1 01.00-02.50 Th Ag 144 Walker P	
463	S W WITH THE AGED	02.0 Cr
Prereq: Consent of instructor		
4261	1 03.00-04.50 M Wham 305 Ehrlich I	
464	PUBLIC WELFARE	02.0 Cr
Prereq: Consent of instructor		
4262	1 03.00-04.50 T Wham 312 Auerbach A	
465	STRAT-HLTH,MEN HLTH	02.0 Cr
Prereq: Consent of instructor		
4263	1 12.00-01.50 T Faner 1030 Brown T	
496	INDEP RESEARCH - SW	01.0 to 06.0 Cr
Prereq: Consent of instructor		
4264	700 To be arranged	

Sociology (SOC)

301	PRINCIPLES OF SOC	04.0 Cr ¹
Prereq: GSB 203		
4277	1 02.00-03.50 T Th Faner 1226 Meddin	
302	CONTEMP SOC PROBS	04.0 Cr ¹
Prereq: GSB 203		
4278	1 09.00-10.50 T Th Pull 215 Brooks	
4279	2 07.35-09.15 pm T Th Pull 35	
312	ELEMENTS OF SOC RES	04.0 Cr ¹
Prereq: GSB 203		
4280	1 11.00 MTWTh Faner 3412 Greenstein	
332	COMPAR SOCIAL ORG	04.0 Cr ¹
Prereq: 301 or GSB 203		
4281	1 10.00-11.50 T Th Pull 35 Nall	
335	URBAN SOCIOLOGY	04.0 Cr ¹
Prereq: GSB 203		
4282	1 01.00-02.50 T Th Faner 1228 Nall	
340	FAMILY	04.0 Cr ¹
Prereq: 301 or GSB 203		
4283	1 09.00 T Th Faner 1326 Lantz	
	09.00 W F H Ec 118	
4284	2 09.00 T Th Faner 1326 Lantz	
	08.00 W F Pull 34	
4285	3 07.35-09.15 pm M W Pull 227	
371	POPULATION	04.0 Cr ¹
Prereq: 301 or GSB 203		
4286	1 12.00 MTWTh Faner 3412 Marcum	
372	CRIMINOLOGY	04.0 Cr ¹
Prereq: 301 or GSB 203		
4287	1 10.00 MT H Ec 203 Synder	
	10.00 W Th Pull 229	
4288	2 10.00 MT H Ec 203 Snyder	
	11.00 Th F Pull 41	
4289	3 06.30-09.50 pm Th Wham 201	
396H	HONORS READINGS-SOC	01.0 to 03.0 Cr ¹
Prereq: Consent of department and instructor		
4290	700 To be arranged	
406	SOCIAL CHANGE	04.0 Cr ¹
Prereq: Two courses in sociology or consent of instructor		
4291	1 02.00-03.50 M W Faner 1226 Meddin	
424	SOC MOVE,COLL BEHAV	04.0 Cr ¹
Prereq: Two sociology courses or consent of instructor		
4292	1 12.00-01.50 M W Faner 1226 McGlynn	
426	SOC FACT-PERS & ADJ	04.0 Cr ¹
Prereq: GSB 321, PSYC 301, or PSYC 307, or consent of instr		
4293	1 03.00-04.50 T Th Faner 2204 Rosel	

435 SOC STRATIFICATION					04.0 Cr¹
Prereq: Two sociology courses or consent of instructor					
4294	1	09.00-10.50	M W	Park	309 Burger
471 DEMOGRAPHY, ECOLOGY					04.0 Cr¹
Prereq: Two sociology courses or consent of instructor					
4295	1	09.00-10.50	T Th	Pull	316 Marcum
472 AMER CORRECT SYSTEM					03.0 Cr
4296	1	11.00-12.15	T Th	H Ec	306 Johnson
Above section restr to graduate students only					
473 JUVENILE DELINQ					04.0 Cr¹
Prereq: GSB 203 and SOC 302 or 372					
4297	1	01.00	TWThF	Faner	1004
Above sect restr to ugrad stud-crosslisted with AJ 473					
4298	2	06.30-09.50 pm	T	H Ec	208 Eynon
Above section crosslisted with AJ 473					
497 SENIOR SEMINAR					04.0 Cr¹
Prereq: Sr stand with 20hrs in SOC or consent of instructor					
4299	1	09.00-10.50	M W	Faner	3412 McGlynn
498 INDEPENDENT RES					01.0 to 04.0 Cr¹
Prereq: Sr stand with 20hrs in SOC and consent of instr					
4300	700	To be arranged			
498H HONORS INDEPEND RES					01.0 to 04.0 Cr¹
Prereq: Cons of dept					
4301	700	To be arranged			
501 SURVEY - SOC THEORY					04.0 Cr
4302	1	06.00-09.50 pm	M	Pull	35 Burger
521 SEM IN SOCIAL PSYC					04.0 Cr
Prereq: 426 or cons of instr					
4303	1	06.00-09.50 pm	W	Pull	39 Greenstein
526A QUANT METH IN SOC					04.0 Cr
Prereq: Graduate standing					
4304	1	08.00-09.50	T Th	Faner	3412 Hawkes
530 TOP SEM IN SOC					02.0 to 04.0 Cr
Prereq: Consent of instructor					
4305	1	08.00-11.50	W	Faner	2204 Alix
Above section for 4 Credits					
4306	2	01.00-02.50	F	Faner	3412 Eynon
Above section for 2 Credits					
542 SEM ON THE FAMILY					04.0 Cr
Prereq: 15 hrs of SOC including 340 or consent of instr					
4307	1	01.00-04.50	T	Faner	3412 Lantz
551 SOC OF RELIGION					04.0 Cr
4308	1	08.00-11.50	F	Faner	3412 Lemert
562 DEVIANCE & DISORG					04.0 Cr
Prereq: 15 hrs of sociology or consent of instructor					
4309	1	06.30-10.00 pm	T	Nkrs A	278 Snyder
591 INDIVIDUAL RESEARCH					01.0 to 04.0 Cr
Prereq: Consent of instructor and dept chairman					
4310	700	To be arranged			
596 READINGS IN SOC					01.0 to 08.0 Cr
Prereq: Consent of instructor and dept chairman					
4311	700	To be arranged			
599 THESIS					01.0 to 06.0 Cr
Prereq: Consent of chairman					
4312	700	To be arranged			
600 DISSERTATION					01.0 to 16.0 Cr
Prereq: Consent of chairman					
4313	700	To be arranged			

Spanish (SPAN)

140A ELEMENTARY SPANISH					04.0 Cr¹
4314	1	08.00	MT ThF	Faner	2073
4315	2	09.00	TWThF	Faner	2073
4316	3	10.00	TWThF	Faner	2073 Hartman
4317	4	11.00	MTWTh	Faner	2079 McBride
4318	5	12.00	MTW F	Faner	2073
4319	6	01.00	MTW F	Faner	2083 Woodbridge
4320	7	02.00	TWThF	Faner	2073 Hartman
4321	8	03.00	MTWTh	Faner	2073
140B ELEMENTARY SPANISH					04.0 Cr¹
Prereq: 140a					
4322	1	03.00	MTWTh	Faner	2079 Ulner

175 ELEM SPAN-SHORT CRS					05.0 Cr
Prereq: 1 yr H.S. Spanish, or equiv, or special perm of inst					
4323	1	12.00	MTWThF	Faner	2079 Wilkinson
201A INTERMEDIATE SPAN					03.0 Cr
Prereq: 140b or 175 or 2 yrs H.S. Spanish, or equivalent					
4324	1	02.00	M	Faner	2073 Ulner
		02.00	W	Faner	2083
		02.00	F	Faner	2079
220 INTER SPAN CONVERS					02.0 Cr¹
Prereq: 140b, 175, or two years high school spanish					
4325	1	09.00	T Th	Faner	2406 McBride
4326	2	12.00	T	Faner	2083 McBride
		12.00	Th	Faner	2073
275 INTER SPAN-SHRT CRS					05.0 Cr¹
Prereq: 175 or 140a,b or equivalent					
4327	1	01.00	MTWThF	Faner	2079 Wilkinson
288A SPAN AS A RES TOOL					03.0 Cr
4328	1	03.00	M W F	Faner	2083 Woodbridge
305 ADV CONVERSATION					02.0 Cr¹
Prereq: 201b or 275, and 220b					
4329	1	09.00	T Th	Faner	2008 Meinhardt
306 INTERMED READINGS					02.0 Cr¹
Prereq: 201b or 275 or equivalent					
4330	1	02.00	T Th	Faner	2206 Ulner
315A SURV-SPAN AMER LIT					03.0 Cr¹
Prereq: 306					
4331	1	11.00	M W F	Faner	2010 Meinhardt
320 ADV GRAMMAR & COMP					04.0 Cr¹
Prereq: 201b or 275 or equivalent					
4332	1	10.00	MT ThF	Faner	2010 Ulner
415 LING STRUCTURE SPAN					03.0 Cr¹
4333	1	03.00	M W F	Faner	2010 Hartman
430 THE GOLDEN AGE-DRAM					03.0 Cr¹
4334	1	02.00	M W F	Faner	2010 Woodbridge
450 SPAN LIT OF 19TH C					03.0 Cr¹
4335	1	10.00	M	Faner	2073 McBride
		10.00	W	Faner	2083
		10.00	F	Faner	2079
485A SPAN AM SHORT STORY					02.0 Cr¹
4336	1	01.00	T	Faner	2073 Meinhardt
		01.00	Th	Faner	2083
490 READINGS IN SPANISH					01.0 to 03.0 Cr¹
Prereq: Consent of department					
4337	700	To be arranged			
565 SP AM LIT OF 20TH C					03.0 Cr
4338	1	01.00	M W F	Faner	2365 Meinhardt
599 THESIS					01.0 to 06.0 Cr
4339	700	To be arranged			

Special Education (SPE)

400 INTRO TO SPEC EDUC					03.0 Cr
4340	1	09.35-10.50	T Th	Pull	34
4341	2	06.00-09.00 pm	T	Wham	302
401 PROB&CHAR-BEHAV DIS					03.0 Cr
Prereq: 400, or concurrent enrl, or consent of dept chairman					
4342	1	09.00	M W F	Wham	326 Stoneburner R
402 PROB,CHAR MR CHILD					02.0 Cr
Prereq: 400 or concurrent enrollment					
4343	1	05.00-06.50	M	Pull	119
403 PROB&CHAR-GIFT CHLD					03.0 Cr
Prereq: 400, or concurrent enrl, or consent of dept chairman					
4344	1	06.00-09.00 pm	Th	Wham	203
404 PROB&CHAR-L.D.CHILD					03.0 Cr
Prereq: 400, or concurrent enrl, or consent of dept chairman					
4345	1	06.00-09.00 pm	T	Wham	308
4346	2	06.00-09.00 pm	T	Pull	39
405 ED PRSCH HNDCP CHLD					03.0 Cr
Prereq: 400, or concurrent enrl, or consent of dept chairman					
4347	1	05.00-07.50	Th	Wham	326 Teska J
406 CHAR SEV HAND CHILD					02.0 Cr
Prereq: 400 or consent of department chairman					
4348	1	07.00-08.50 pm	M	Wham	329

411 AS & PLAN FOR REMED					03.0 Cr	SPE 87	
Prereq: 400 and consent of chairman							
49	1	10.00-11.50	Th H Ec	208 Teska & Stoneburner			
To be arranged							
One additional hour							
412 AS&REMEDI PRSCH HDCP					03.0 Cr		
Prereq: 400 and 405							
350	1	01.00-02.50	W Faner	2204			
To be arranged							
One additional hour							
417 TCH BD CHILD-EL LEV					02.0 Cr		
Prereq: 411; concurrent enrollment in EDUC 312 and EDUC 400							
351	1	02.00	M W Ag	154			
418 TCH EMH CHLD-EL LEV					02.0 Cr		
Prereq: 411; concurrent enrollment in EDUC 312 and EDUC 400							
352	1	04.00	T Th Wham	305			
419 TCH LD CHILD-EL LEV					02.0 Cr		
Prereq: 411; concurrent enrollment in EDUC 312 and EDUC 400							
353	1	03.00	T Th Wham	112			
421 MTH TCH SEV HNDICAP					03.0 Cr		
Prereq: 411 or 412; concurrent enrollment in EDUC 312 & 400							
354	1	06.00-09.00 pm	T Wham	203			
423 GEN PROCEDURES-SP E					02.0 Cr		
Prereq: 411 or 412; concurrent enrollment in Education 312							
4355	1	02.00	T Th Wham	112 Juul			
4356	2	02.00	T Th H Ec	201 Hisama T			
4357	3	02.00	T Th Pull	227 Rainey D			
425 HOME-SCH COORD-SP E					02.0 Cr		
Prereq: 400 or consent of department chairman							
4358	1	03.00-04.50	M Wham	201			
4359	2	03.00-04.50	M Wham	205			
4360	3	03.00-04.50	W Wham	201			
430 HANDICAP ADOL TO 21					02.0 Cr		
Prereq: 400 and one of 401, 402, 403, or 404							
4361	1	01.00	T Th Pull	316 Ewing N			
4362	2	05.00-06.50	W H Ec	104 Ewing N			
431 SEV HNDICAP ADOL-21					02.0 Cr		
Prereq: 400 & one of 401,402,404,or 406;conc enrl in EDUC312							
4363	1	07.00-09.00pm	W Pull	128			
490 READINGS IN SP EDUC					01.0 to 05.0 Cr		
Prereq: 400 and consent of department chairman							
4364	700	To be arranged					
500 SP ED RES PROBLEMS					03.0 Cr		
Prereq: Consent of instructor							
4365	1	07.00-10.00 pm	W Pull	117 Stoneburner R			
502 SP ED RES PAPER					02.0 Cr		
Prereq: 500.consent of instructor							
4366	700	To be arranged					
511A ASSESSM & REMED PLN					03.0 Cr		
Prereq: 411							
4367	1	To be arranged			Brecht R		
513 ORG,ADMIN & SUPER					03.0 Cr		
Prereq: 400,consent							
4368	1	06.00-09.00 pm	T Pull	41			
517 ATYP CHI & SOC AGEN					02.0 Cr		
Prereq: 400 and consent							
4369	1	05.00-06.50	W H Ec	106			
518 WORKSHOP IN SP ED					02.0 to 06.0 Cr		
Prereq: 400 and consent of instructor and dept chairman							
4370	1	To be arranged			Brecht R		
Topic:- Mainstreaming							
4371	401	09.00-01.30	MTWThF Pull	119			
Topic: Assessment & Remed Plan- meets 8/9-8/20							
580 MASTERS SEMINAR					03.0 Cr		
Prereq: 400,consent of instructor and department chairman							
4372	1	06.00-09.00 pm	Th Pull	208 Joiner L			
582 P-M SEM-REMEDI MODEL					02.0 Cr		
Prereq: Consent of instructor							
4373	1	To be arranged			Hisama T		
585 DR SEM-EVAL IN SP E					02.0 Cr		
Prereq: 582,583							
4374	1	To be arranged					

591 INDEP INVESTIGATION					02.0 to 05.0 Cr		
Prereq: Consent of instructor							
4375	700	To be arranged					
594 PRACTICUM IN SP ED					01.0 to 06.0 Cr		
Prereq: Consent of instr & department chairman							
4376	700	To be arranged					
600 DISSERTATION					01.0 to 16.0 Cr		
Prereq: Consent of chairman							
4377	700	To be arranged					
Speech (SPCH)							
221 PUBLIC COMM II					03.0 Cr		
Prereq: GSD 153 or consent of instr							
4432	1	03.00	M W F Comm	2012			
230 INTRO TO SPEECH ED					03.0 Cr		
4433	1	11.00-12.15	T Th Comm	1018			
261 DISCUSS & CONFERENC					03.0 Cr		
4434	1	09.00	M W F Comm	2012			
262 INTERPERS COMM II					03.0 Cr		
Prereq: GSD 152 or consent of instr							
4435	1	09.35-10.50	T Th Comm	1006			
4436	2	02.00-03.15	T Th Comm	1018			
320 INTERCULTURAL COMM					03.0 Cr		
Prereq: GSD 152 or SPCH 262 or consent of instructor							
4437	1	03.35-04.50	T Th Comm	1017 Lanigan R			
325 ARGUMENT & DEBATE					03.0 Cr		
4438	1	02.00-03.15	T Th Comm	1017 Kleinau M D			
326 PERSUASION					03.0 Cr		
4439	1	09.35-10.50	T Th Comm	1022			
4440	2	10.00	M W F Comm	1018			
4441	3	02.00	M W F Comm	1018			
361 NONVERBAL COMM					03.0 Cr		
Prereq: 262 or consent of instructor							
4442	1	11.00-12.15	T Th Faner	2512 Smith W			
362 COMM & SOC PROCESS					03.0 Cr		
4443	1	11.00	M W F Comm	2012 Lanigan R			
370 ORAL INTERP II					03.0 Cr		
Prereq: GSC 200 or consent of instr							
4444	1	12.35-01.50	T Th Comm	1006 Fish R			
380 BUS & PROF SPEAKING					03.0 Cr		
Prereq: GSD 153-2							
4445	1	09.35-10.50	T Th Comm	1018 Macdonald D			
381 PR POLICY & PRACTIC					03.0 Cr		
Prereq: Junior standing							
4446	1	12.35-01.50	T Th Lawson	231 Macdonald D			
382 RES MTH PUBLIC COMM					04.0 Cr		
4447	1	11.00-12.50	T Th Ag	224 Sanders K			
390 APPLIED COMMUNICAT					01.0 to 03.0 Cr		
Prereq: Consent of instructor and departmental adviser							
4448	1	To be arranged					
401 COMM THEOR & MODELS					03.0 Cr		
4449	1	09.00	M W F Ag	148 Lanigan R			
421 STU IN PUBLIC ADDR					03.0 Cr		
Prereq: For undergrad, 311 or consent of instructor							
4450	1	10.00	M W F Wham	321 Bytwerk R			
Topic: Totalitarian Rhetoric							
431 SPCH IN SEC SCHOOL					03.0 Cr		
Prereq: 12 hours of speech							
4451	1	03.35-04.50	T Th Faner	2365			
432 SEC SCH FORENS PROG					03.0 Cr		
Prereq: 325, GSC 200							
4452	1	11.00	M W F Comm	1018 Kleinau M D			
433 CREAT DRAM FOR CHLD					03.0 Cr		
4453	1	09.35-10.50	T Th Comm	2014 Mchughes J			
		09.00	F Comm	2014			
435 TOPICS-CREAT DRAMAT					03.0 Cr		
4454	1	06.30-09.00 pm	T Comm	1020 Mchughes J			
440 LANGUAGE BEHAVIOR I					04.0 Cr		
4455	1	05.30-09.00	Th Comm	1017 Higginbotham D			

1Elective Pass/Fail

2Mandatory Pass/Fail

444	LANG OF YOUNG CHILD	03.0 Cr
4456	1 06.00-08.30 pm M Lawson 101 Higginbotham D	
461	LAB-INTERPER COMM I	03.0 Cr
4457	1 02.00-03.15 T Th Faner 2365 Pace T	
471	ORAL INTERP-PROSE	03.0 Cr
	Prereq: 370, GSC 200 or consent of instructor	
4458	1 03.35-04.50 T Th Comm 1020 Kleinau M L	
474	GRP PRFRM-READ THEA	03.0 Cr
	Prereq: 370, or consent of instructor	
4459	1 03.00-04.50 M W Comm 2014 Kleinau & McHughes	
480	STU IN ORGANIZ COMM	03.0 Cr
4460	1 06.00-08.30 pm T Comm 1017 Mccauliff M	
481	PR CASES, CAMPAIGNS	02.0 Cr
	Prereq: 381	
4461	1 06.00-07.50 pm T Comm 1018 Macdonald D	
490A	PRACTICUM-P.R.	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4462	1 To be arranged	
490B	PRACT-COMM STUDIES	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4463	1 To be arranged	
490C	PRAC-INTERPERS COMM	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4464	1 To be arranged	
490D	PRAC-ORAL INTRP LIT	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4465	1 To be arranged	
490E	PRACT-FORENSIC ACT	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4466	1 To be arranged	
490F	PRAC-CREATIVE DRAMA	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4467	1 To be arranged	
490G	PRAC-POLITICAL COMM	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4468	1 To be arranged	
490H	PRAC-ORGANIZAT COMM	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4469	1 To be arranged	
490I	PRACT-LANG BEHAVIOR	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4470	1 To be arranged	
490J	PRAC-INSTRUCT COMM	01.0 to 06.0 Cr
	Prereq: Consent of instructor & dept advisor	
4471	1 To be arranged	
491	INDEP STU-COMMUNIC	01.0 to 03.0 Cr
	Prereq: 12 hours of speech, consent of instr & dept advisor	
4472	700 To be arranged	
526	SEM-STU-PERSUASION	03.0 Cr
4473	1 06.00-08.30 pm M Comm 2012 Smith W	
539	SPCH AT UNIV LEVEL	03.0 Cr
4474	1 06.00-08.30 pm W Comm 2012 Mcglone E	
593	RES PROB IN COMM	01.0 to 03.0 Cr
	Prereq: Consent of instructor and departmental adviser	
4475	700 To be arranged	
599	THESIS	01.0 to 06.0 Cr
4476	700 To be arranged	
600	DISSERTATION	01.0 to 16.0 Cr
4477	700 To be arranged	

Speech Pathology and Audiology (SP&A)

100	SPCH CLINIC-THERAPY	00.0 to 01.0 Cr
	Prereq: Consent of instructor	
4478	1 To be arranged Anderson	
200	PHONETICS	03.0 Cr
4479	1 09.00 M W F Comm 1022 Brackett I P	
203	INTRO SPCH SCIENCE	03.0 Cr
4480	1 08.00 M W F Comm 1007 Hoshiko	

205	INTRO TO SPCH PATH	03.0 Cr
4481	1 11.00 M W F Comm 1006 Anderson	
302	PHONO DEV & DISORD	03.0 Cr
	Prereq: 200 or concurrent enrollment	
4482	1 09.00 M W F Comm 1007 Blache	
303	LANG DEVEL & DISORD	03.0 Cr
	Prereq: 200 or concurrent enrollment	
4483	1 11.00-12.15 T Th Comm 1017 Pace	
316	AUDIO & AUDIOMETRY	03.0 Cr
	Prereq: Junior standing	
4484	1 11.00-12.15 T Th Comm 1006 Copeland	
318	PARAMETERS OF VOICE	03.0 Cr
	Prereq: 205	
4485	1 02.00 M W F Comm 1006 Brackett I P	
401	DIAG PROC-SPCH PATH	03.0 Cr
	Prereq: 200,314	
4486	1 08.00 M W F Comm 1006	
407	COMM DISORD-C PALSY	02.0 Cr
	Prereq: 205,314, or consent of instr	
4487	1 01.00 T Th Comm 1007 Anderson	
414	ANAT,PHSL-SP & HEAR	03.0 Cr
4488	1 10.00 T Th LS II 149B Kaplan & Brackett	
	10.00-11.50 F LS II 149B	
419	COMM PROB H OF HEAR	03.0 Cr
	Prereq: 316 or consent of instructor	
4489	1 03.00 M W Comm 1006 Moncur	
	04.00 M Comm 1006	
420	BASIC AUDIOMET EVAL	03.0 Cr
	Prereq: 316	
4490	1 11.00 M W Comm 1007 Franzen	
	10.00-11.50 F Comm 1007	
431	BIOFEEDBACK COMM	01.0 to 03.0 Cr
4491	1 To be arranged Hoshiko	
491	INDIVIDUAL STUDY	01.0 to 02.0 Cr
	Prereq: Consent of the chairman	
4492	700 To be arranged	
494	CLN PRAC-PHON DISOR	01.0 to 02.0 Cr
	Prereq: 302	
4493	1 03.00 M W F Comm 1009 Blache	
4494	2 03.35-04.50 T Th Comm 1009 Blache	
4495	3 04.00 M W F Comm 1009 Blache	
495	CLN PRAC-LANG DISOR	01.0 to 02.0 Cr
	Prereq: 303	
4496	1 To be arranged	
496	CLN PRAC-HEAR DISOR	01.0 to 02.0 Cr
	Prereq: 316, 419, or consent of instructor	
4497	1 To be arranged Franzen & Copeland	
497	CLIN PRAC-HEAR DIAG	01.0 to 02.0 Cr
	Prereq: 316,420	
4498	1 To be arranged Franzen & Copeland	
500	RES DES IN SP&A	03.0 Cr
4499	1 01.00 M W F Comm 1006 Bruten	
503	LAB INSTRUM IN SP&A	03.0 Cr
	Prereq: 203 or consent of instructor	
4500	1 02.00 M W Comm 1007 Hoshiko	
	03.00 M W Comm 1007	
505	PHON ACQUIS IN CHLD	03.0 Cr
	Prereq: Consent of instructor	
4501	1 11.00-12.15 T Th Comm 1007 Blache	
507	MOD TECH-SYNT IMPAR	03.0 Cr
	Prereq: 303	
4502	1 03.35-04.50 T Th Comm 1006	
510	STUT BEH-ASSES THEO	03.0 Cr
	Prereq: 319, equivalent, or consent of instructor	
4503	1 02.00-03.15 T Th Comm 1006 Bruten	
526	IND,COMM HEAR CONSV	03.0 Cr
	Prereq: 316 or consent of instructor	
4504	1 02.00 M W F Comm 1017 Franzen	
528	SEM-ACOUSTIC OF EAR	03.0 Cr
	Prereq: 316 or consent of instructor	
4505	1 09.00 M W Comm 1009 Copeland	
	10.00 M Comm 1009 Copeland	

550 SEMINAR-SP&A		03.0 Cr
Prereq: Consent of chairman		
4506	700 To be arranged	
590 READINGS IN SP&A		01.0 to 02.0 Cr
Prereq: Consent of chairman		
4507	700 To be arranged	
593 RES PROBS IN SP&A		01.0 to 03.0 Cr
Prereq: Consent of chairman		
4508	700 To be arranged	
594 CLN PRAC-VOIC DISOR		01.0 to 02.0 Cr
Prereq: 318 or equivalent		
4509	1 To be arranged	Brackett I P
595 CLN PRC-FLUEN DISOR		01.0 to 02.0 Cr
Prereq: 510		
4510	1 02.00-04.50 W Wham	149A
598 INTERNSHIP IN SP&A		01.0 to 03.0 Cr
Prereq: Consent of chairman		
4511	700 To be arranged	
599 THESIS		01.0 to 06.0 Cr
4512	700 To be arranged	
600 DISSERTATION		01.0 to 16.0 Cr
4513	700 To be arranged	

Theater (THEA)

203 VOICE AND DICTION		02.0 Cr ¹
4524	1 09.00 M W Faner	2010
4525	2 10.00 W F Comm	1006
207 THEATRICAL DESIGN		02.0 Cr ¹
4526	1 09.35-10.50 T Th Comm	1037 Payne D
211A STAGE TECH-SCENERY		02.0 Cr
4527	1 01.00-02.50 M W Comm	1045 Reynolds H
Additional crew hours TBA		
4528	2 01.00-02.50 T Th Comm	1045
Additional crew hours TBA		
211B STAGE TECH-LIGHTING		02.0 Cr
4529	1 03.00-04.50 T Th Comm	1037 Reynolds H
Additional crew hours TBA		
211C STAGE TECH-COSTUME		02.0 Cr
4530	1 10.00 M W F Comm	2041
Additional crew hours TBA		
213 STAGE MOVEMENT		02.0 Cr
4531	1 09.35-10.50 T Th Comm	1038 Taylor
Above section restricted to THEA majors only		
4532	2 03.35-04.50 T Th Pull	42 Taylor
217 ACTING		02.0 Cr ¹
4533	1 10.00 M W F Comm	1045
4534	2 11.00-12.15 T Th Comm	1038
4535	3 03.00 M W F Comm	1038
230A BEGIN TECH BALLET		02.0 Cr
4536	1 01.00-02.30 M W F Gym	206
4537	2 02.30-04.00 M W F Gym	206
230a-restricted class card required,dept chairman		
230B BEG TECH-CLS BALLET		02.0 Cr
Prereq: 230a or consent of instructor		
4538	1 10.00-11.50 T Th Gym	206
Restr class cd req,chairman crosslisted with PEW 230b		
230C BEG TECH-CLS BALLET		02.0 to 12.0 Cr
Prereq: 230b or consent of instructor		
4539	1 11.00-12.30 M W F Gym	206
Restr class cd req,chairman crosslisted with PEW 230c		
240A BEG TECH-CONT DANCE		02.0 Cr
4540	1 11.00-12.30 M W F Pull	42
Restr class cd req,chairman crosslisted with PEW 240a		
240B INT TECH-CONT DANCE		02.0 Cr
Prereq: 240a or consent of instr		
4541	1 01.00-02.50 T Th Pull	42
Restr class cd req,chairman crosslisted with PEW 240b		
240C ADV TECH-CONT DANCE		02.0 to 14.0 Cr
Prereq: 240b or consent of instr		
4542	1 11.00-12.50 T Th Pull	42
Restr class card required dept chairman		

258 WORK EXPERIENCE		01.0 to 30.0 Cr ²
Prereq: Departmental and advisor approval		
4543	1 02.00 M Comm	1037 Talarowski
305 STAGE MAKE-UP		02.0 Cr
4544	1 09.00 M W Comm	1043
Additional crew hours TBA		
4545	2 09.35-10.50 T Th Comm	1043
Additional crew hours TBA		
308A DRAM ACT-STAGECRAFT		01.0 to 02.0 Cr
Prereq: 211a		
4546	1 01.00-02.50 F Comm	1057 Reynolds H
Additional crew hours TBA		
308B DRAM ACT-LIGHTING		01.0 to 02.0 Cr
Prereq: 211b		
4547	1 01.00-02.50 F Comm	1057 Reynolds H
Additional crew hours TBA		
308C DRAM ACT-COSTUMING		01.0 to 02.0 Cr
Prereq: 211c		
4548	1 12.00-01.50 M Comm	2041 Stewart-Harrison
Additional crew hours TBA		
308D DRAM ACT-ACTING		01.0 to 02.0 Cr
Prereq: 217		
4549	1 03.00-04.50 M Comm	1037 Cannon J
311 PLAY ANALY,WRI PRAC		02.0 Cr
Prereq: One course in dramatic lit		
4550	1 11.00 T Th Comm	1022 Moe C
312 DANCE PHILOSOPHIES		03.0 Cr
4551	1 01.00 M W Pull	42
	01.00-02.50 F Pull	42
Crosslisted with PEM & PEW 312		
317A INTERMED ACT-CHARAC		02.0 Cr
Prereq: 217		
4552	1 09.35-10.50 T Th Comm	1045 Cannon J
317B PRELIM SCENE STUDY		02.0 Cr
Prereq: 317a		
4553	1 02.00-03.15 T Th Comm	1045 Cannon J
322 PRACTICUM IN THEA		01.0 to 10.0 Cr
4554	1 02.00 M Comm	1037 Talarowski J
Assignments?tba		
354A HISTORY OF THEATRE		03.0 Cr
4555	1 12.00 M W F LSI	133 Proctor J
390 READING IN THEA ART		02.0 Cr
Prereq: Theater major & consent of advisor & instructor		
4556	700 To be arranged	
Above section restr-consent of instr & department		
391 INDEP STU-THEA ARTS		02.0 Cr
Prereq: Theater major & consent of advisor & instructor		
4557	700 To be arranged	
Above section restr-consent of instr & department		
402A PLAY DIRECTING		03.0 Cr
4558	1 09.00 M W F Comm	1037 Proctor J
402B PLAY DIRECTING		03.0 Cr
Prereq: 402a except with consent of instructor		
4559	1 10.00 M W F Comm	1037 Proctor J
404 THEATER MANAGEMENT		03.0 Cr
4560	1 01.00 M W F Faner	3514 Straumanis A
410 CHILDRENS THEATER		02.0 Cr
4561	1 01.00 T Th Wham	301B Straumanis A
411A PLAYWRITING-ONE ACT		03.0 Cr
Prereq: Ugrad thea,spch maj-311. Nonmaj,grad-1 crse dram lit		
4562	1 11.00 M W F Faner	1226 Moe C
412A STAGE DESIGN		03.0 Cr ¹
Prereq: 207		
4563	1 10.00 M W F Comm	2042 Payne D
414 COSTUME DESIGN		03.0 Cr
4564	1 11.00 M W F Comm	2041 Stewart-Harrison E
417 ADVANCED ACTING		02.0 Cr
Prereq: 217 and 317		
4565	1 12.00 M W F Comm	1045 Cannon J

432 STAGE LIGHTING					02.0 Cr
Prereq: 211b or consent of instructor					
4566	1	10.00	T Th	Comm	1057 Reynolds
438 CONTEMP DEVEL-THEA					02.0 Cr
4567	1	11.00	T Th	Comm	2040 Harrison E
500 INTRO RESEARCH METH					02.0 Cr
Prereq: Graduate standing					
4568	1	02.00	T Th	Lib	219 Stewart-Harrison E
502 ADVANCED DIRECTING					03.0 Cr
Prereq: Consent of instructor					
4569	1	11.00-12.15	T Th	Comm	1045 Talarowski
Additional hours TBA					
519 THEATER PRACTICUM					01.0 to 10.0 Cr
4570	1	02.00	M	Comm	1045 Talarowski J
Additional hours TBA					
526B DESIGN & PRODUCTION					02.0 Cr
Prereq: Consent of department					
4571	1	03.00-04.50	T	Comm	2012 Payne D
530 RESEARCH PROBS-THEA					01.0 to 09.0 Cr
4572	700	To be arranged			
599 THESIS					01.0 to 06.0 Cr
4573	700	To be arranged			
600 DISSERTATION					01.0 to 16.0 Cr
4574	700	To be arranged			

Thermal and Environmental Engineering (TEE)

314 INTRO-ENVIR POLLUTE						04.0 Cr ¹
Prereq: Chem 224,jr standing						
4575	1	01.00	MTWTh	Tech A	208	Chen & Hesketh
400 POWER & REFRIG CYCL						03.0 Cr
Prereq: Engr 300						
4576	1	10.00	M W F	Tech A	208	Petrie
401 THERMAL MEASURE LAB						01.0 Cr
Prereq: Engr 302						
4577	1	To be arranged				
408 ENERGY CONSERV SYST						03.0 Cr
Prereq: Engr 302 and Engr 361 or consent of instructor						
4578	1	09.00	M W F	Tech B	42	
423 WASTE HEAT MGT						03.0 Cr
Prereq: 314, Engr 300, or consent of instructor						
4579	1	02.00	M W F	Tech B	42	Kent
435 HEAT,MASS TRAN PROC						03.0 Cr
Prereq: Engr 302						
4580	1	11.00	M W F	Tech A	208	Obrien
492 SPEC PROB IN ENGR						01.0 to 05.0 Cr
Prereq: Senior standing and consent of instructor						
4581	700	To be arranged				
500 ADV ENGR THERMODYN						03.0 Cr
Prereq: Engr 300						
4582	1	03.00	M W F	Tech B	20	
517 INDUS WASTE TREATMT						03.0 Cr
Prereq: 415						
4583	1	To be arranged				
4584	875	04.30-07.00	M	M.I.F.		Cook
525 SMALL PART PHENOMEN						03.0 Cr
Prereq: Graduate standing						
4585	1	To be arranged				Hesketh
4586	875	04.30-07.00	Th	M.I.F.		Hesketh
580 SEMINAR						01.0 to 04.0 Cr
4587	1	To be arranged				
592 SPEC INVESTIGA-ENGR						01.0 to 04.0 Cr
Prereq: Consent of instructor & dept chairman						
4588	700	To be arranged				
4589	875	To be arranged		M.I.F.		Chen
599 THESIS						01.0 to 06.0 Cr
4590	700	To be arranged				
4591	875	To be arranged		M.I.F.		Chen

Tool and Manufacturing Technology (TT)

101 BASIC TOOL MFG LAB					01.0 to 07.0 Cr
4592	1	11.00-01.30	MTWThF	L1	101 Muhich F
4593	2	02.30-05.00	MTWThF	L1	101 Soderstrom H
4594	3	05.00-09.30	M	L1	101
Above section for 3 credits only					
125 INTRO TO MACH TOOLS					01.0 to 03.0 Cr
4595	1	01.30-02.20	M W F	L1	105 Muhich F
128 HYDRAULICS & PNEUMAT					02.0 Cr
4596	1	01.30-02.20	T Th	M4	107 Traylor G
180 WELDING I					03.0 Cr
4597	1	09.00	MTWThF	M4	108 Tregoning P
4598	2	01.00	MTWThF	M4	108 Tregoning P
181 WELDING II					03.0 Cr
4599	1	12.00	MTWThF	M4	108 Tregoning P
182 WELDING III					03.0 Cr
Prereq: 181 or consent of instr					
4600	1	12.00	MTWThF	M4	108 Tregoning P
185 TECH DRAWING I					04.0 Cr
4601	1	10.00	MTWThF	M4	101 Muhich F
210 NU CONTR,EL DIS,T&D					01.0 to 07.0 Cr
Prereq: 102 or consent of instr					
4602	1	08.00-10.50	MTWThF	L1	101 Traylor G
220 NU CONT,INSP & DISC					01.0 to 03.0 Cr
Prereq: 126 or consent of instr					
4603	1	11.00	M W F	F1	102 Traylor G
275 FERROUS METALLURGY					02.0 Cr
4604	1	11.00	T Th	M4	102 Tregoning P
310 CERTIF WELD TRAIN					06.0 to 24.0 Cr
Prereq: Completion formal welding prog or equiv work exper					
4605	1	To be arranged			Tregoning P

University (UNIV)

101 COMP LEARNING SKILL					02.0 Cr
4606	1	08.00-09.30	M W	0720	117 Buchar
4607	2	08.00-09.30	T Th	0720	117 Snyder
4608	3	10.00-11.30	M W	0720	117 Snyder
4609	4	10.00-11.30	T Th	0720	117 Snyder
4610	5	12.00-01.30	M W	0720	117 Buchar
4611	6	12.00-01.30	T Th	0720	117 Gallo-Lund
4612	7	02.00-03.30	T Th	0720	117 Gallo-Lund
4613	8	02.00-03.30	M W	0720	117 Snyder
4614	9	04.00-05.30	M W	0720	117 Snyder
4615	10	06.00-07.30 pm	M W	0720	117 Akinfeleye

Vocational Education Studies (VES)

395 OCCUPAT INTERNSHIP					02.0 to 24.0 Cr
Prereq: Consent of coordinator					
4616	700	To be arranged			
419 OCCUP TCHG INTERN					02.0 to 12.0 Cr
Prereq: 395-10 hours, 490-3 hours					
4617	700	To be arranged			
425 INTRO-COOP VOC EDUC					03.0 Cr
4618	1	08.00-09.50	T	H Ec	133 Bubnas P
To be arranged					
426 POST-SEC COOP VO ED					03.0 Cr
4619	1	06.00-08.30 pm	T	Tech D	131 Gooch B
485 PRIN,PHIL-VO TEC ED					03.0 Cr
4620	1	09.35-10.50	T Th	Tech D	131 Buila
4621	2	06.00-08.30 pm	W	Tech D	131 Buila
490 READINGS					02.0 to 04.0 Cr
Prereq: Consent of instructor					
4622	700	To be arranged			
492 SPECIAL PROBLEMS					02.0 to 05.0 Cr
Prereq: Consent of instructor and coordinator					
4623	700	To be arranged			
500 RES-VOC,PRE VOC ED					03.0 Cr
4624	1	06.00-08.30 pm	T	H Ec	133 Fulta A
Above section for Home Economics Education students					
4625	2	06.00-08.30 pm	M	Cl	125 Rahe H
Above section for Business Education students					
4626	3	06.00-08.30 pm	Th	Tech A	320 Erickson J
501 LEGIS-ORG,APPL VOED					03.0 Cr
4627	1	09.00-11.30	S	Tech D	131 Weisman L

502 EVAL VOC,PRE-VOC PR				03.0 Cr	
628	1	06.00-08.30 pm	T Tech A	320	Stadt R
629	2	06.00-08.30 pm	Th Pull	37	Anderson M
Restr to Business Education majors					
519 INTERNSHIP				01.0 to 16.0 Cr	
630	700	To be arranged			
526 COOP POST-SEC OC ED				03.0 Cr	
Prereq: 425 or 426,or previous professional experience					
4631	1	06.00-08.30 pm	W Pull	37	Stadt
541 OCCUPATIONAL INFO				03.0 Cr	
4632	1	06.00-08.30 pm	W Tech A	410	Ramp W
590 READ-VOC,PRE-VOC ED				01.0 to 04.0 Cr	
Prereq: Consent of instructor					
4633	700	To be arranged			
592 SPECIAL INVESTIGAT				02.0 to 06.0 Cr	
Prereq: Consent of instructor					
4634	700	To be arranged			
599 THESIS				02.0 to 06.0 Cr	
4635	700	To be arranged			
600 DISSERTATION				01.0 to 36.0 Cr	
4636	700	To be arranged			

Zoology (ZOOL)

118 INTRODUCTORY ZOOL				04.0 Cr	
4639	1	08.00	M W F	Lawson	161 Waring
		10.00-11.50	T	LS II	320
4640	2	08.00	M W F	Lawson	161 Waring
		10.00-11.50	W	LS II	320
4641	3	08.00	M W F	Lawson	161 Waring
		12.00-01.50	W	LS II	320
4642	4	08.00	M W F	Lawson	161 Waring
		08.00-09.50	Th	LS II	320
4643	5	08.00	M W F	Lawson	161 Waring
		10.00-11.50	Th	LS II	320
4644	6	08.00	M W F	Lawson	161 Waring
		10.00-11.50	F	LS II	320
4645	7	12.00	M W F	Lawson	161 Garoian G
		12.00-01.50	T	LS II	320
4646	8	12.00	M W F	Lawson	161 Garoian G
		06.00-07.50 pm	T	LS II	320
4647	9	12.00	M W F	Lawson	161 Garoian G
		08.00-09.50	W	LS II	320
4648	10	12.00	M W F	Lawson	161 Garoian G
		02.00-03.50	W	LS II	320
4649	11	12.00	M W F	Lawson	161 Garoian G
		12.00-01.50	Th	LS II	320
4650	12	12.00	M W F	Lawson	161 Garoian G
		08.00-09.50	F	LS II	320
4651	13	03.00	M W F	Lawson	161 Shepherd
		02.00-03.50	T	LS II	320
4652	14	03.00	M W F	Lawson	161 Shepherd
		04.00-05.50	T	LS II	320
4653	15	03.00	M W F	Lawson	161 Shepherd
		04.00-05.50	W	LS II	320
4654	16	03.00	M W F	Lawson	161 Shepherd
		06.00-07.50 pm	W	LS II	320
4655	17	03.00	M W F	Lawson	161 Shepherd
		02.00-03.50	Th	LS II	320
4656	18	03.00	M W F	Lawson	161 Shepherd
		04.00-05.50	Th	LS II	320

212 BIRDING				02.0 Cr	
4657	1	01.00	T Th	LS II	430 George W

4657	1	01.00	T	Th	LS II	430	George W
220A DIV ANI LIFE-INVERT						04.0 Cr	
Prereq: Principle interest in biology							
4658	1	11.00	T	Th	LS I	133	Dyer
		08.00-09.50	M	W	LS II	369	
4659	2	11.00	T	Th	LS I	133	Dyer W
		08.00-09.50	T	Th	LS II	369	
4660	3	11.00	T	Th	LS I	133	Dyer W
		10.00-11.50	M	W	LS II	369	
4661	4	11.00	T	Th	LS I	133	Dyer W
		02.00-03.50	T	Th	LS II	369	
4662	5	11.00	T	Th	LS I	133	Dyer W
		02.00-03.50	M	W	LS II	369	
4663	6	02.00	T	Th	Lawson	161	Dyer W
		10.00-11.50	T	Th	LS II	369	
4664	7	02.00	T	Th	Lawson	161	Dyer W
		12.00-01.50	M	W	LS II	369	

¹Elective Pass/Fail ²Mandatory Pass/Fail

4665	8	02.00	T Th	Lawson	161 Dyer W
		12.00-01.50	T Th	LS II	369
4666	9	02.00	T Th	Lawson	161 Dyer W
		04.00-05.50	M W	LS II	369
4667	10	02.00	T Th	Lawson	161 Dyer W
		04.00-05.50	T Th	LS II	369
4668	11	02.00	T Th	Lawson	161 Dyer W
		06.00-07.50 pm	T Th	LS II	369

220B DIV ANI LIFE-VERT 04.0 Cr

Prereq: Principle interest in biology					
4669	1	10.00	M W	LS I	133 George W
		08.00-09.50	T Th	LS II	325
4670	2	10.00	M W	LS I	133 George W
		10.00-11.50	T Th	LS II	325
4671	3	10.00	M W	LS I	133 George W
		12.00-01.50	T Th	LS II	325
4672	4	10.00	M W	LS I	133 George W
		02.00-03.50	T Th	LS II	325
4673	5	03.00	M W	Wham	105 George W
		08.00-09.50	M W	LS II	325
4674	6	03.00	M W	Wham	105 George W
		10.00-11.50	M W	LS II	325
4675	7	03.00	M W	Wham	105 George W
		04.00-05.50	M W	LS II	325

258 WORK EXPERIENCE 02.0 to 04.0 Cr²

4676	700	To be arranged			
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300 VERT EMBRYOLOGY 04.0 Cr

Prereq: 220b					
4677	1	10.00	T Th	LS II	450
		08.00-09.50	M W	LS II	303
4678	2	10.00	T Th	LS II	450
		03.00-04.50	M W	LS II	303

314 BIOL OF HUMAN POPUL 03.0 Cr

4679	1	11.00	M W F	Ag	222 Petersen B
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316 INSECT PESTS CONTRL 03.0 Cr

Prereq: 118 or equivalent					
4680	1	01.00	T Th	Wham	328 Mcpherson J
		10.00-11.50	Th	LS II	304

393 INDIVIDUAL RESEARCH 01.0 to 03.0 Cr

Prereq: 3.0 GPA, sr standing, & approv by dept or faculty					
4681	700	To be arranged			

402 NAT HIST INVERT 03.0 Cr

Prereq: 220a					
4682	1	11.00	T	Wham	205 Beatty J
		01.00-02.50	T F	LS II	304
4683	2	11.00	T	Wham	205 Beatty J
		03.00-04.50	T F	LS II	304

406 PROTOZOLOGY 03.0 Cr

Prereq: 220a					
4684	1	09.00	T	LS II	430 Garoian G
		10.00-11.50	T Th	LS II	303

408 HERPETOLOGY 03.0 Cr

Prereq: 220b					
4685	1	02.00	T	LS II	430 Brandon R
		01.00-02.50	W F	LS II	325

410A VERT PALEONTOLOGY 03.0 Cr

Prereq: 120b					
4686	1	02.00-03.50	M W	LS II	256 Galbreath E

414 FRESHWATER INVERT 04.0 Cr

Prereq: 220a					
4687	1	12.00	M W	LS II	430 Beatty J
		01.00-02.50	M W	LS II	304

415 LIMNOLOGY 03.0 Cr

Prereq: 220a					
4688	1	08.00	T Th	LS II	450 Stahl J
		08.00-11.50	F	LS II	310

421 HISTOLOG TECHNIQUES 04.0 Cr

Prereq: 10 sem hrs of a biological science					
4689	1	12.00	F	LS II	430 Martan J
		09.00-11.50	M W	LS II	381

461 MAMMALOGY 03.0 Cr

Prereq: 220b					
4690	1	08.00	T	LS II	430 Stains H
		10.00-11.50	M W	LS II	310

466 FISH MANAGEMENT					03.0 Cr
Prereq: 10hrs of biological science & consent of instructor					
4691	1	03.00	M W	LS II 450	Heidenger R
		01.00-04.50	F	LS II 310	
Friday meets alternate weeks					
468A WILDLIFE BIOL-PRIN					02.0 Cr
Prereq: 10 sem hrs biol sci; zool maj;concur enrl in 468b					
4692	1	12.00	M W	Ag 166	Hardin J
468B WILDLIFE BIOL-TECH					02.0 Cr
Prereq: 10 sem hrs biol sci					
4693	1	08.00-11.50	S	LS II 310	
4694	2	10.00-01.50	Th	LS II 310	
4695	3	01.00-04.50	T	LS II 310	
4696	4	02.00-05.50	Th	LS II 310	
471 ENTOMOLOGY					03.0 Cr
Prereq: 220a					
4697	1	03.00	T	LS II 430	Mcpherson J
		09.00-10.50	M W	LS II 304	
479 CONCEPTS-ANIM BEHAV					02.0 to 05.0 Cr
Prereq: One year of biology or permission of instructor					
4698	1	01.00	M W	LS II 430	Waring
		03.00-04.50	W	LS II 310	
4699	2	01.00	M W	LS II 430	Waring
		03.00-04.50	W	LS II 310	
482 ZOOL SEM FOR SRS					01.0 Cr ²
Prereq: Senior standing or 24 sem hrs life science completed					
4700	1	04.00	T	LS II 450	
First meeting only					
4701	2	04.00	T	LS II 450	
First meeting only					
4702	3	04.00	T	LS II 450	
First meeting only					
496 ZOOL FIELD STUDIES					02.0 to 04.0 Cr
Prereq: Consent of department					
4703	700	To be arranged			
566 FISH CULTURE					03.0 Cr
Prereq: Consent of instructor					
4704	1	09.00	T Th	LS II 450	Lewis W
		01.00-04.50	F	LS II 310	
Lab meets alternate Fridays					
578 POPULATION GENETICS					02.0 Cr
Prereq: Consent of instructor					
4705	1	01.00	T Th	Ag 218	Englert D
581 ZOOLOGICAL LIT					02.0 Cr
Prereq: Grad status in a biological science					
4706	1	12.00	T Th	Ag 218	Brandon R
582 GRADUATE ZOOL SEM					01.0 Cr
Prereq: Consent of instructor and dept					
4707	700	To be arranged			
583 TEACH ZOOL-COLLEGE					01.0 Cr
Prereq: Grad status in a biological science					
4708	1	03.00	Th	LS II 430	Galbreath E
585C SEM-ECOSYSTEMS					03.0 Cr
Prereq: Consent of instructor					
4709	1	To be arranged			Lefebvre E
585E SEM-WILDLIFE ECOL					03.0 Cr
Prereq: Consent of instructor					
4710	1	08.00	M W F	Faner 2061	Klimstra W
593 INDIVIDUAL RESEARCH					01.0 to 08.0 Cr
4711	700	To be arranged			
599 RESEARCH AND THESIS					01.0 to 08.0 Cr
4712	700	To be arranged			
600 RES & DISSERTATION					01.0 to 32.0 Cr
Prereq: Consent of instructor					
4713	700	To be arranged			

Appendix:

Instructors for Independent Study Courses

The following is a reference list for use in registering into classes which are entered in the schedule with a section number of "700." Refer to the paragraph entitled "Independent Study Courses" in chapter 1 of this book for an explanation of the registration procedure. In nearly every instance, written permission of the instructor and/or the department chairman is required prior to registration. Students desiring to work in a department or program under a faculty member not listed below in that department or program, may obtain the instructor number from the department.

Accountancy

Barron 707
Burger 713
Burns 715
Eriksen 712
Glick 704
Neal 717
Nestman 714
Schmidlein 701
Sternner 716
Swick 703
Tucker 706
Woelfel 702
Wright 710

Administration of Justice

Anderson 711
Barry 716
Bascom 719
Bennett 718
Coughlin 706
Dreher 708
Eynon 701
Farrell, R. 714
Johnson 707
Kiefer 703
Klyman 717
Matthews 710
Rich 704
Wilson, K. 713
Wilson, N. 709

Administrative Sciences

Bateman 705
Bussom 720
Fohr 730
Hunt 735
Jauch 738
Larson 740
Osborn 760
Reeves 763
Vicars 770
Westberg 742
Wilson 775

Agricultural Industries

Cusumano 713
Doerr 703
Herr 707
Lybecker 711
Paterson 709
Solverson 710
Stitt 702
Welton 706
Wills 708
Wolff 704
Wood 701

Animal Industries

Goodman 701
Hausler 702
Hinnners 703
Hodson 704
Kammlade 705
Koehn 712
Kroening 706
Lee 707
Males 708
McCoy 711
Olson 709
Strack 710

Anthropology

Bender 712
Cook 707
Dark 714
Gumerman 701
Handler 705
Kelley 711
MacLachlan 715
Maring, E. 709
Maring, J. 702
Muller 704
Plog 718
Rafferty 719
Rands 708
Riley 716

Art

Abrahamson 713
Addington 717

Beene 725
Bernstein 706
Boysen 720
Deller 726
Feldman 708
Fink 722
Greenfield 704
Johnson 714
Kington 719
Link 712
Lintault 705
Littlefield 702
Loyd 727
Mavigliano 710
Onken 709
Paulson 711
Sullivan, M. 701
Sullivan, J. 703
Walsh, R. 718
Walsh, T. 723
Wood 715

Black American Studies

Charles 701
Cox 702
Jones 705
Robinson 706
Sturgis 707

Botany

Ashby 711
Bissing 727
Matten 712
Mohlenbrock 713
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Registration Work Sheet

- This form is provided for your use in establishing a tentative class schedule before coming to the Registration Center.

1. Write in the course and section number in the appropriate day and time column.
2. Note: Avoid scheduling two classes at the same time.

3. It is suggested that you also make an alternative schedule.

4. Tentative class schedules are subject to the rules and policies on registration of the University and the Registration Center.

TIME	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
	Course	Sect.	Course	Sect.	Course	Sect.	Course	Sect.	Course	Sect.	Course	Sect.
8:00												
9:00												
10:00												
11:00												
12:00												
1:00												
2:00												
3:00												
4:00												
*	*											
*	*											

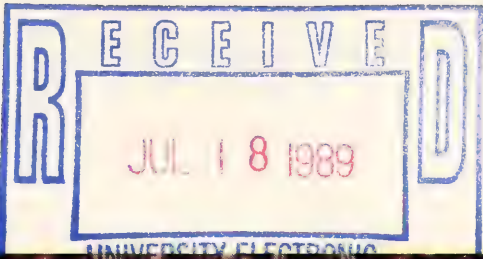
*Write in times for night classes.

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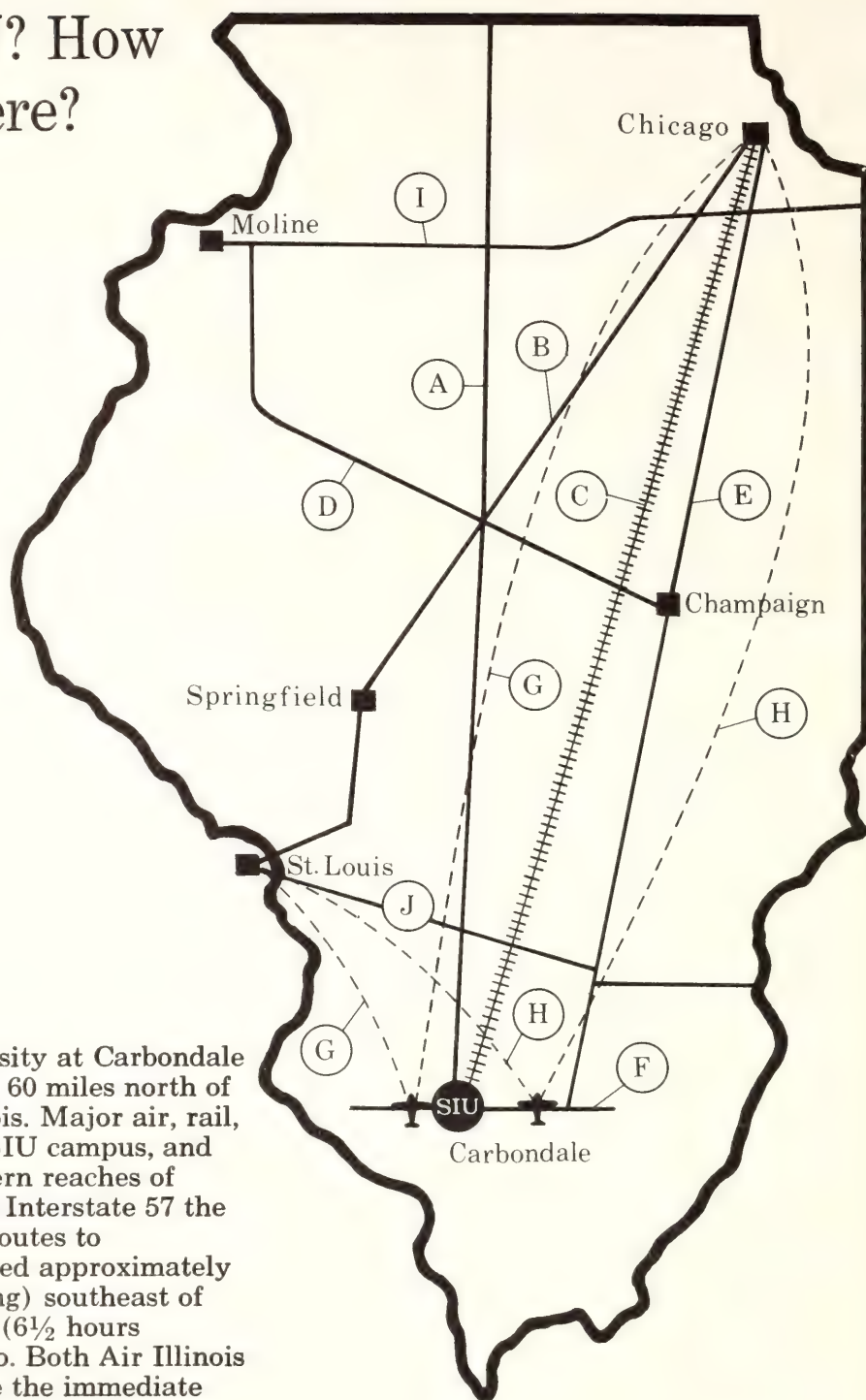


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Where Is SIU? How Do I Get There?

- A/U.S. Route 51
- B/Interstate 55
- C/Amtrak-I.C.G.R.R.
- D/Interstate 74
- E/Interstate 57
- F/Illinois Route 13
- G/Air Illinois
- H/Ozark Airlines
- I/Interstate 80
- J/Interstate 64



Southern Illinois University at Carbondale is located approximately 60 miles north of the southern tip of Illinois. Major air, rail, and bus lines serve the SIU campus, and students from the northern reaches of Illinois find Amtrak and Interstate 57 the fastest and most direct routes to Carbondale. SIU is located approximately 110 miles (2 hours driving) southeast of St. Louis, and 330 miles (6½ hours driving) south of Chicago. Both Air Illinois and Ozark Airlines serve the immediate SIU area.

For more information call toll free to the office of Admissions and Records
1-800-642-3531 (Illinois residents only).

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How to Choose the Right College

First determine if the college or university has the major you want. Obtain and thoroughly review the catalog of each institution you are thinking about. When you have narrowed your selection to two or three schools, schedule a visit. Attempt to talk with personnel in admissions, housing, student work and financial assistance and also with a representative of each department that interests you.

Assistance in making such arrangements normally can be obtained by contacting the admissions office of the institutions of your choice. In corresponding with and in visiting a campus, you may also discover just how much interest that school and its personnel have in you.

Compare Academic Programs

If you want to receive a degree in radio-television, journalism, forestry, or any other field, don't settle for anything less. Examine college catalogs carefully. Make sure the institution you choose offers a degree in your major, not just a specialization or a few courses under some general degree. Examine the depth and scope of training available at the graduate level to determine what opportunities would be available if you decided to work toward advanced degrees. Graduate work in many fields is fast becoming a necessity.

Consider what you would have to do if you changed your major. Are the academic offerings large enough in your areas of interest to accommodate a change in major?

Visit the Campus

Any one who is seriously interested in making the best possible selection in schools will shop around. Visiting a college campus gives first hand knowledge of what a campus is all about, what its faculty and students are like, and if its

academic programs suit individual needs. You should shop as wisely for a college as you would for an automobile.

Each college campus has its own personality and atmosphere. It's something that you must experience in person to appreciate, for no two campuses are ever alike. Some institutions look very impressive on paper, but in person their images and facilities may be reduced to just publicity techniques and little else.

Compare Costs and Financial Aid Packages

Make sure you are investing wisely. Never pay more than you have to in obtaining a quality education.

Never equate high or low costs with the quality of education. Examine academic programs, library facilities, physical plant, faculty, and student services to determine exactly what you have available in return for your investment.

Investigate deeply into financial aid packages. Ask yourself and college officials how long you can count on their assistance. Take advantage of state and federal programs based on financial need; these often pay more than institutional awards. Check out academic scholarships at various institutions to determine if you might be eligible. Above all, apply early for financial aid.





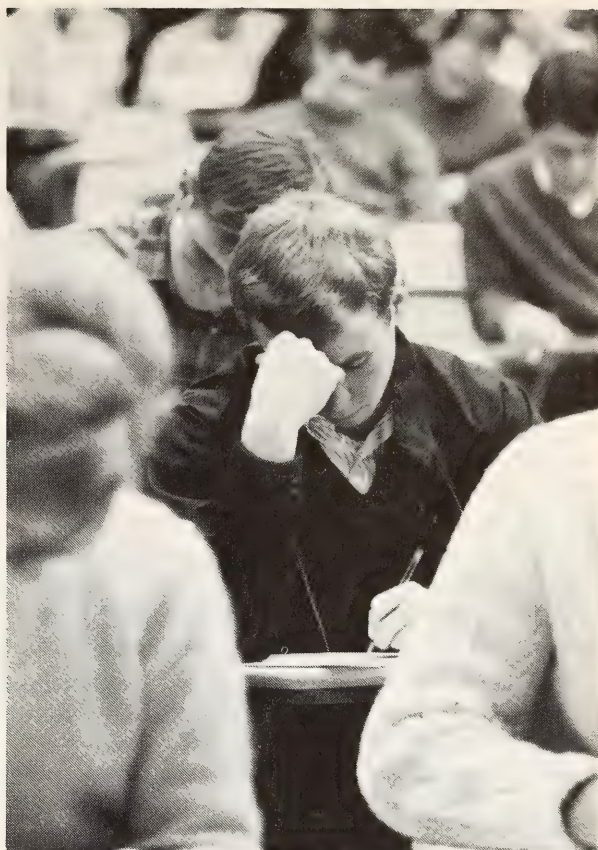
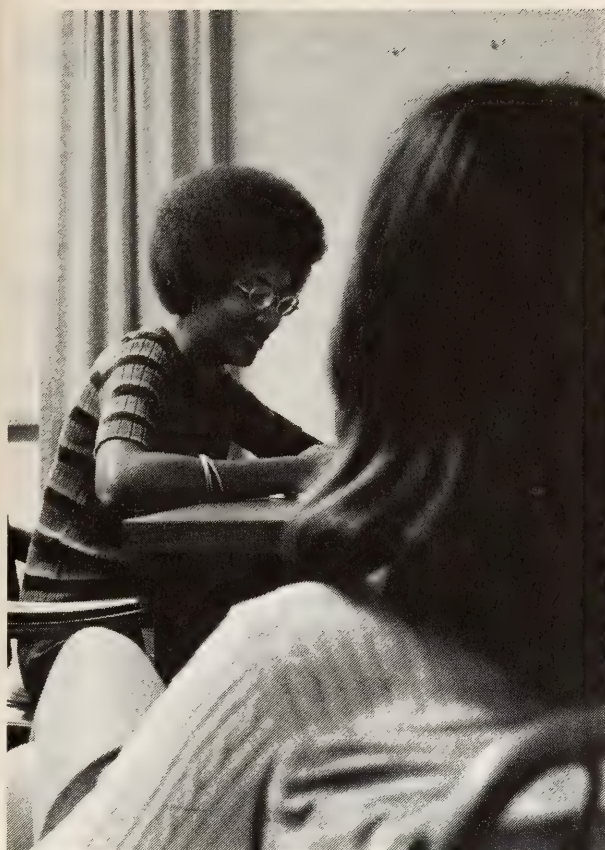
Comprehensive University

Although Southern Illinois University at Carbondale is among the top 30 in the nation in full-time resident enrollment, teaching efforts are focused on the special interests of individual students. The faculty and facilities in various schools, colleges, divisions, and departments are designed to offer general and professional training from two-year associate degree programs to doctoral degrees.

The University and all of its programs are fully accredited by the North Central Association of Colleges and Secondary Schools. The University and its academic components carry the following selected accreditation at the associate, baccalaureate, and advanced levels: North Central Association, National Council for Accreditation of Teacher Education, Accrediting Council of the American Assembly of Collegiate Schools of Business, Inc., American Bar Association, American Board of Funeral Service Education, American Chemical Society,

American Council on Education for Journalism, American Dental Association, American Dietetics Association, American Institute of Architects, American Medical Association, American Association of Medical Colleges, American Physical Therapy Association, American Psychological Association, American Speech and Hearing Association by American Board of Examiners in Speech and Hearing, Board of Vocational Education of the State of Illinois, Council on Social Work Education, Engineer's Council for Professional Development, National Association of Industrial Technology, Foundation for Interior Design Research, National Association of Schools of Music, Society of American Foresters, United States Office of Education, and State Board of Vocational Education for Vocational Home Economics.

The comprehensive offerings of Southern Illinois University at Carbondale can be matched only by a few institutions in the nation. A faculty representing diverse backgrounds and training from the best schools throughout the world add to these outstanding selections. Sixty-three percent of the full-time faculty hold the doctorate. The ratio of students to full-time faculty is twenty-two to one.



General Academic Programs

The Undecided Major

If you have decided upon a major, you may declare it and be admitted directly to that program. However, surveys made in the past several years reveal that slightly more than half of all entering freshmen have not chosen a major at the time they apply for admission. Many students in addition change their majors after their first term in attendance.

Choosing a major and ultimately a career is one of the most important decisions anyone ever makes. Pre-major advisement, in General Academic Programs, provides the opportunity for a student to come in contact with new ideas and curricula of more than a hundred undergraduate specializations.

Under the guidance of professional academic advisers, the selection of a major

field logically follows a period of experimentation with the variety of courses offered in General Studies and the major disciplines of the University.

The General Studies Program

It has been said that every educated person should know a little of everything and something well. Every student should learn something about the major areas of learning outside his or her field of concentration, lest the overall program of study result in over-specialization and narrowness. This "broadening-out" process is called general education and is an integral part of degree requirements at every university in this country.

At SIU the general education concept is implemented through a program called General Studies. The pattern is quite simple and, for identification, is divided into five areas of study. A wide range of choice is available and particular course selections will depend upon your individual interest and background. The University believes in a strong, well-rounded education but does not believe that every student must take the same courses to meet that objective. Your academic adviser will assist you in

determining which courses will be the right choices for you. But remember that the ultimate responsibility for specific course selection is yours. Flexibility is the keystone of our present program—flexibility fitted to your individual talents and interests.

The requirements within the five areas of General Studies are: *Area A: Man's Physical Environment and Biological Inheritance*—9 semester hours chosen from courses representing three different departments such as botany, chemistry, engineering, geography, geology, music, physics, physiology, psychology, and zoology.

Area B: Man's Social Inheritance and Social Responsibilities—9 semester hours chosen from courses representing three different departments such as agriculture, anthropology, black American studies, child & family, economics, education, family economics & management, finance, geography, history, journalism, linguistics, political science, psychology, and sociology. *Area C: Man's Insights and Appreciations*—9 semester hours chosen from courses representing three different departments such as art, black American studies, cinema and photography, design, literature, foreign language, music, philosophy, recreation, religious studies, speech, and theater.

Three additional hours are required and may be chosen from Area A, B, or C.

Area D: Organization and Communication of Ideas—11 semester hours including 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communication.

Area E: Human Health and Well-Being—4 semester hours chosen from numerous physical education activities, including aquatics, exercise, dance, individual and team sports; and academic courses in the fields of health, and nutrition.

There is no mandatory freshman program; freshmen are free to take, within the broad framework of the General Studies Program, any courses that interest them and which they feel they can handle. For example: Would you like to learn more about hi-fi sound systems? . . . where to look for oil? . . . space science? . . . the relationship of man to nature? . . . how to identify the wild flowers of Southern Illinois? . . . how to predict weather? . . . Do the cultures of America or the world interest you? . . . Are you interested in psychology? . . . jazz? . . . religion? . . . philosophy? . . . sociology? . . . or

economics? Have you always wanted to learn to play the piano? . . . to scuba dive? . . . to tap dance? . . . to play golf?

You can do all of these things, and more, while you are fulfilling your General Studies requirements. Compare these general education courses with those of other schools and you will readily see why at SIU general education is enjoyable and rewarding.

General Studies Courses

Man's Physical Environment and Biological Inheritance (GSA)

Courses

- 101-3 Conceptual Insights Into Modern Communication Systems: From Hi-Fi Sound to Laser Beams.
- 106-3 Chemistry for Non-Science Majors.
- 107-1 Chemistry Laboratory for Non-Science Majors.
- 110-3 Earth Science.
- 115-3 Biology.
- 125-3 Systems Nature of Man's World.
- 202-3 Space Science—Astronomy.
- 208-1 Laboratory Experiences in Physiology.
- 209-3 Principles of Physiology.
- 211-3 Geology of the National Parks.
- 220-3 Survival of Man.
- 221-3 Survival of Man.
- 230-3 Energy and the Future.
- 240-3 Ecology and Man.
- 302-3 Psychobiology.
- 303-3 Ferns, Trees, and Wild Flowers.
- 312-3 Conservation of Natural Resources.
- 313-2 Evolution.
- 314-2 Human Heredity.
- 321-3 Fossils: Keys to Ancient Life and Environments.
- 322-3 Earth's Mineral Resources.
- 323-3 Introduction to Gems Materials.
- 324-3 Water: The Friend and Enemy of Man.
- 330-3 Weather.

356-3 Creativity in Science and Technology.

361-3 Acoustics of Music.

399a-12 Folk Arts, Crafts, and Uses of the Environment—Expressions of Living in the Southern Appalachian Region.

Man's Social Inheritance and Social Responsibilities (GSB)

Courses

103-3 Geography of Man's Environment.

104-3 Man and His World: Anthropology.

105-3 The Contemporary World.

109-3 Introduction to Black America.

112-3 Comparative Economic Systems.

125-3 Systems Nature of Man's World.

135-3 The Third World: The African Model.

160-2 Mass Communication in Society.

202-3 Introduction to Psychology.

203-4 The Sociological Perspective.

206-3 Applied Child Development.

207-3 Contemporary Political Ideologies.

211-3 Contemporary Economics.

212-4 Introduction to American Government and Politics.

220-3 Survival of Man.

221-3 Survival of Man.

230-3 Emergent Societies and Alternative Life Styles.

231-2 The American Educational Systems

250-3 Introduction to Comparative Government and Politics

255-2 Regional Geography of the United States.

270-3 Introduction to International Relations.

299c-3 The Changing World of Work.

299d-2 The High Price of Food.

299e-3 Values, Systems, and Society.

300-3 Origins of Modern America, 1492–1877.

301-3 Modern America from 1877 to the Present.

305-3 Personal Finance.

310-1 to 6 (1 per semester) Current Events.

311-3 Economic Development of Western Civilization.

321-3 Socialization of the Individual.

325-3 Race and Minority Relations.

330-3 Language and Behavior.

341-3 Marriage as a Social Institution.

346-2 Consumer Choice and Behavior.

378-3 Introduction to American Foreign Policy.

399a-12 Folk Arts, Crafts, and Uses of the Environment—Expressions of Living in the Southern Appalachian Region.

Man's Insights and Appreciations (GSC)

Courses

100-2 Music Understanding.

101-3 Introduction to Art.

102-3 Problems in Philosophy.

104-3 Moral Decision.

107-2 Man, Leisure, and Recreation.

109-3 Introduction to Black America.

200-3 Oral Interpretation of Literature.

201-3 Introduction to Drama.

202-3 Introduction to Poetry.

203-3 Introduction to Theatre.

204-3 Meaning in the Visual Arts.

205-3 Innovation for the Contemporary Environment.

206-3 Music as a Creative Experience.

207-2 Aesthetics.

208-3 Elementary Logic.

209-3 Modern Literature: Form and Idea.

210-3 Introduction to Fiction.

212-3 Oriental Humanities.

214-3 Oriental Philosophies.

216-3 Types of Eastern Religion.

217-3 Types of Western Religion.

221-3 Survival of Man.

231-3 Greek Civilization.

232-3 Roman Civilization.

299e-3 Values, Systems and Society.

317-3 Recent American Literature.

325-3 Black American Writers.

330-3 Classical Mythology.

335-3 The Short Story.

349-3 The Cinema.

363-3 Philosophy of Science.

365-3 Shakespeare.

371-2 Evolution of Jazz.

390-3 Contemporary American Thought.
 393-3 to 6 Studies in Literature.
 399a-12 Folk Arts, Crafts, and Uses of the Environment—Expressions of Living in the Southern Appalachian Region.

Organization and Communication of Ideas (GSD)

Courses

101-3 English Composition.
 104-2 Grammar in Language.
 106-0 Elementary Algebra.
 107-4 Intermediate Algebra.
 110-2 Economic and Business Statistics.
 112-2 Basic Concepts of Statistics.
 113-2 Introduction to Mathematics.
 117-2 Expository Writing.
 118-2 Technical Report Writing.
 119-2 Creative Writing.
 152-2 Interpersonal Communication.
 153-3 Public Communication.
 199a-1 Library as an Information Source.

Human Health and Well-Being (GSE)

Courses

100-1 to 4 (1,1,1,1) Restricted Physical Education (P.E.-Men).
 101-1 to 14 (1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2) Swimming (P.E.-Men). Beginning swimming, intermediate swimming, diving, skin diving, scuba diving, lifesaving, canoeing.
 102-1 and 2 Physical Fitness (P.E.-Men).
 102A-1 or 2 Weight Training (P.E.-Men).
 103-1 to 14 (1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2) Dance (P.E.-Men). Square, folk, social, beginning contemporary, intermediate contemporary, ballet, tap dancing.
 104- (1 or 2 per activity) Individual and Team Activity (P.E.-Men). Archery, badminton, basketball, bowling, golf, soccer, karate, tennis, volleyball, softball, horseback riding, fencing, cross-country, gymnastics, fly and bait casting, flag football, wrestling, self defense, beginning judo, handball, racquetball, floor hockey.
 105-1 or 2 Weight Control (P.E.-Men).
 106-1 or 2 University Orienteering (Concepts and Techniques) (P.E.-Men).

110-1 to 4 (1,1,1,1) Restricted Physical Education (P.E.-Women).

111-1 to 14 (1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2) Swimming (P.E.-Women) Beginning swimming, intermediate swimming, synchronized swimming, skin diving, scuba diving, lifesaving, canoeing.

112-1 or 2 Exercise for Fitness (P.E.-Women).

113-1 to 14 (1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2, 1 or 2) Dance (P.E.-Women) Square, folk, social, beginning contemporary, intermediate contemporary, ballet, tap dancing.

114- (1 or 2 per activity) Individual and Team Activity (P.E.-Women). Archery, badminton, basketball, bowling, golf, tennis, volleyball, horseback riding, gymnastics and tumbling, track and field, intermediate bowling, intermediate tennis, racquetball.

201-2 Healthful Living.

236-2 Nutritional Ecology of Man.

240-2 Human Relations Between the Sexes.



School of Technical Careers

The School of Technical Careers (STC) provides a full range of career-oriented programs, from the associate degree through post-associate specializations to individualized baccalaureate programs. It is a unit unique to Southern Illinois University at Carbondale, which was one of the first major universities in the nation to initiate vocation-centered programs.

The School of Technical Careers is geared to serve the educational needs of its students in their pursuit of immediate and long-range goals. Its progressive levels of instruction accommodate students' needs for recurrent or "stop-in, stop-out" education, permitting alternate periods of work and study.

High school graduates, college transfer students, returning veterans, teachers seeking to keep abreast of advancement in their fields, adults who want to improve or re-direct their career preparation—all of these find a place in the School of Technical Careers.

Associate and post-associate career programs are offered in 23 fields. These are high-demand programs which are not readily available in community colleges, such as aviation technology, or programs which draw from other resources of the University, such as physical therapist assistant or photographic and audio-visual technology. The school conducts the state's only public mortuary science and funeral service program. Programs in law enforcement and correctional services have the benefit of cooperation with state and federal penal institutions and with the University's Center for the Study of Crime, Delinquency, and Corrections. Post-associate specializations, such as court and conference reporting, give students the opportunity to build upon their associate degree work with added studies necessary for licensure or those needed to meet the special requirements of a particular career field.

The baccalaureate degree program in technical careers is unique to this school. It is designed to meet the educational needs of the career-oriented student which are not filled by existing programs.

Many types of previous educational and occupational experiences may be applied to this program. The student, in consultation with advisers, develops a course of study designed to meet the individual's own career objectives.

For example, a student who plans to make a career in preventive dental hygiene may combine studies in health, food and nutrition, guidance, and physical education with the dental hygiene program to develop an individualized four-year program. Or, the individual who wishes to go into graphic arts management might add studies in business, journalism, and administrative sciences to programs in commercial graphics or printing.

The student whose goal is operation of an automobile dealership or maintenance facility can combine business, management, and industrial technology courses with studies in automotive technology. One who sees career possibilities in designing funeral home facilities might study architecture, interior design, and mortuary science.

Possible courses of study and combinations of interests in this program are as limitless as the needs of the students enrolled. There are no restrictions except those basic requirements for all programs set by the University.



Pre-Professional Programs/ Health Professions

While the programs indicated below are usually the most popular pre-professional programs, students interested in health careers have a variety of choices at Southern Illinois University.

The School of Technical Careers offers programs in dental laboratory technology, dental hygiene, and physical therapist assistants. Other SIU divisions offer baccalaureate degrees in speech pathology, and audiology, dietetics, health education, and therapeutic recreation. Actually there are some 200 occupations and, while many of these require only short term or on-the-job training, many of them can be begun with a fairly general college education.

At SIU pre-professional programs range from one year to four years. Students preparing for schools of medicine (including osteopathic), dentistry, and veterinary science are usually in undergraduate school four years. The basic requirements for all these schools can be met at SIU and consist of specific coursework in chemistry, physics, biological sciences, English, and mathematics.

One of the outstanding features available to pre-professional and health careers students at SIU is the guidance and supervision of two advisory committees. The Premedical Advisory Committee, Predental Advisory Committee operate to assist students toward goals in their respective areas. These committees keep in touch with current trends of professional schools, furnish curriculum guides, and prepare composite evaluations to recommend premedical and predental students to the various professional schools.

The Health Professions Information Office is another big asset for SIU students. This office serves as a centralized location for information on health careers, training required, lists of professional schools, and information about requirements and admissions to the various professional schools.

While the SIU Schools of Medicine and Dental Medicine are newcomers to the state and nation, our pre-professional programs are of long standing. SIU offers a comprehensive university with quality preparatory programs to those students interested in qualifying for admission to professional schools.

Pre-Professional Programs

- Dentistry
- Medical Technology
- Medicine
- Nursing
- Optometry
- Pharmacy
- Physical Therapy
- Veterinary Science



School of Agriculture

The School of Agriculture is blessed with the facilities, personnel, and the geographic location that make it one of the outstanding study, research, and service centers for agriculture and forestry in the midwest. In addition to classrooms and laboratories, University facilities which are devoted to teaching and research in the School of Agriculture include nearly 2,000 acres of farm and timber land, 15,575 square feet of greenhouse space, and a special center devoted to each of six species of livestock. Area resources which are available for field study, research, and practical laboratory experiences include the USDA Forestry Sciences Lab, located on campus; the nearly 240,000-acre Shawnee National Forest, the Walnut Research Station, and several state parks.

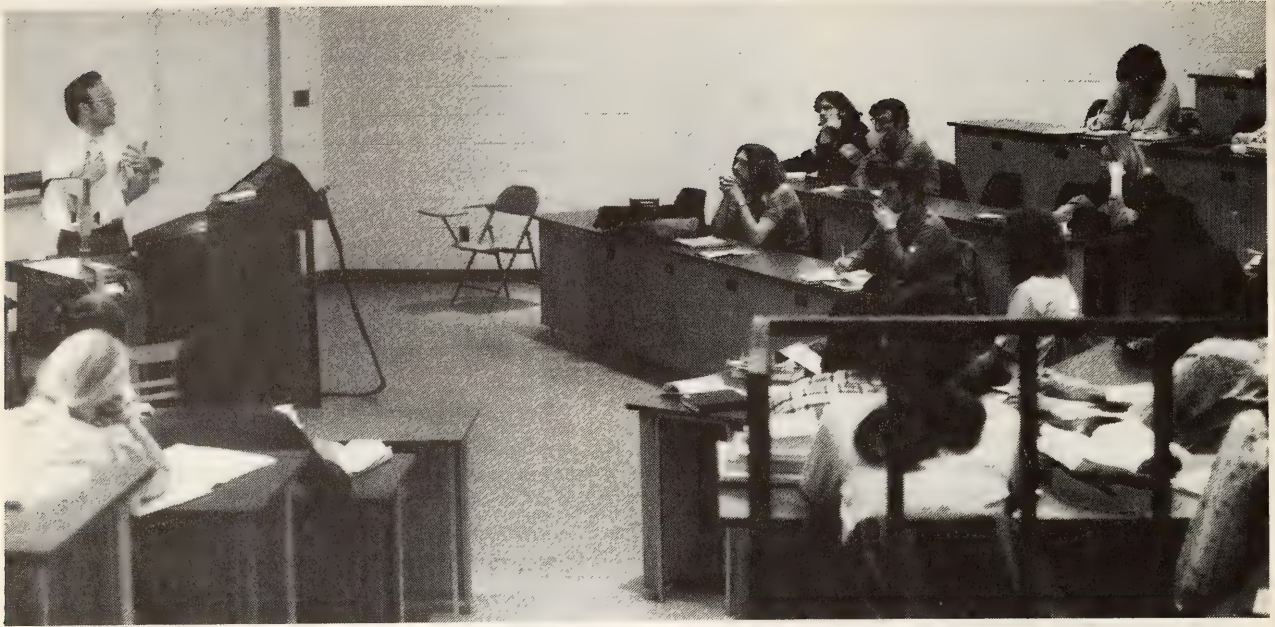
Although good teaching is the primary responsibility of School of Agriculture faculty, research shares a near-equal priority. Research supports graduate-student programs and serves to discover new or improved agricultural information. Areas of investigation range from animal nutrition to animal waste disposal, from walnut genetics to wood technology, from strip-mine reclamation to greenhouse production practices for ornamental plants, from farm credit to farm

marketing, from park and recreation areas use to recreational animal behavior, and from agricultural education to zero tillage. This broad range of research topics reflects the areas of interest of faculty and students and their response to current demand for new and improved agriculture information.

School of Agriculture students come from both rural and urban homes, and yes! a rapidly increasing number of agriculture and forestry students are women.

Over 90 percent of the faculty hold the doctorate, and among the faculty there are graduate degrees from more than 30 of the most prestigious schools or colleges of agriculture in the nation. SIU is a member of the National Association of State Universities and Land Grant Colleges (NASULGC).





College of Business and Administration

The College of Business and Administration provides excellent training to students interested in managerial careers in business, government, and public-service organizations. The programs offered are also attractive pre-law alternatives in that the education provided is not only an excellent preparation for law school but, more importantly, business training is invaluable in the actual practice of law. Many students who are undecided about a career find the programs within the college valuable because they prepare the student for a wide variety of employment possibilities.

Students can take classes from national authorities in accounting, organizational behavior, operations research management, marketing, and investments—faculty whose works have been published in the *Accounting Review*, the *Harvard Business Review*, the *Journal of Finance*, *Management Science*, the *Journal of Marketing Research*, and *Operations Research* just to mention a few. The faculty of the college emphasizes excellence in instruction, and some of the University's best teachers are faculty members in the College of Business and Administration.

Many opportunities for professional development exist outside the classroom environment. Several active student organizations operate in the college and allow the individual students to become involved and to develop many qualities which will be of use in their later professional careers. Programs, such as the Alumni Lecture Series and Executive of the Day, enable students to meet successful business executives and to discuss opportunities and problems with them.

In this day of computers, students in the college can become acquainted on a hands-on basis with the college's small business computer. In many classes students are given actual business problems for their review and consideration. In brief, educational experience in the college is relevant and deals with real world situations.

Students may also be able to culminate their professional growth during their senior year by completing an internship program. Perhaps most important, they usually find upon graduation that their training is in demand by employers, many of whom come to the campus to interview them during their senior year.

Ample graduate opportunities are also available to those students who desire further training in business administration. Students, whether undergraduate or graduate, discover that the college provides a quality educational experience, as suggested by the accreditation bestowed to the college by the Accreditation Council of the American Assembly of Collegiate Schools of Business.

College of Communications and Fine Arts

The College of Communications and Fine Arts offers a level of professional instruction that has made it one of the most popular and attractive academic units on campus.

Each school or department in the college has a success story of its own. The Department of Radio-Television reinforces formal academic training with plenty of practical experience. The University operates two maximum-power full-color television stations serving 46 counties as well as a 50,000 watt stereo FM radio station serving three states. Theory merges with experience on the air to create a highly successful academic program.

The operating matrix for the Department of Theater includes an ultra-modern main stage theater with a seating capacity for 600, plus a 150 seat theater for student productions and experimental works.

The School of Journalism is considered one of the best in the nation and offers students modern facilities, sophisticated equipment, thorough training and practical experience. Journalism students can work for one of the best college newspapers in the country, the *Daily Egyptian*, with a daily circulation of 19,500, gain experience, and get paid while doing it.

The program in the Department of Speech Pathology and Audiology prepares students to be certified speech pathologists and audiologists at both the state and national levels. Three degrees, B.S., M.S., and Ph.D., are offered combining extensive coursework at all levels as well as extensive training in the University's Clinical Center.

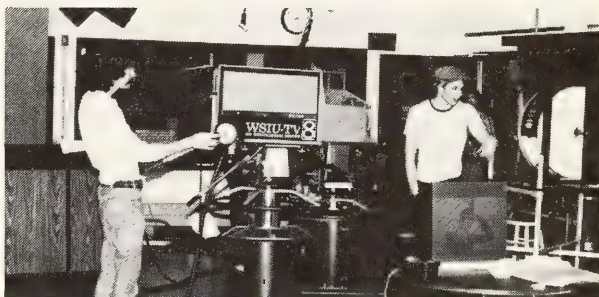
The Department of Cinema and Photography provides students with modern darkrooms and studio facilities for the production of cinema and still photography. A comprehensive curriculum, with various specializations is designed to meet the interest and professional needs of students.

Some of the best sounds in the nation are produced by the School of Music.

Graduate and undergraduate programs are directed toward producing performers, composers, historians, and music educators. You will find eighteen performing groups in regular rehearsal on the SIU campus as well as a department which produces over one hundred and thirty events locally per year, some are even sent on tour.

The School of Art emphasizes three major areas: studio, history, and education. Studio majors in painting, drawing, and prints are prepared to work independently as artists or in commercial studios and business. Students in crafts are prepared for independent pursuits in their own studios or for larger workshops. Students in education are equipped to meet all requirements for teaching in the public schools. For the art history majors, there's advanced work at the graduate level and college teaching.

The Department of Speech Communication prepares students for careers in professional, instructional, and artistic communications. Four separate majors allow students maximum flexibility. Besides majors in general speech, speech education, and oral interpretation, the public relations major is one of the more outstanding in the midwest.



College of Education

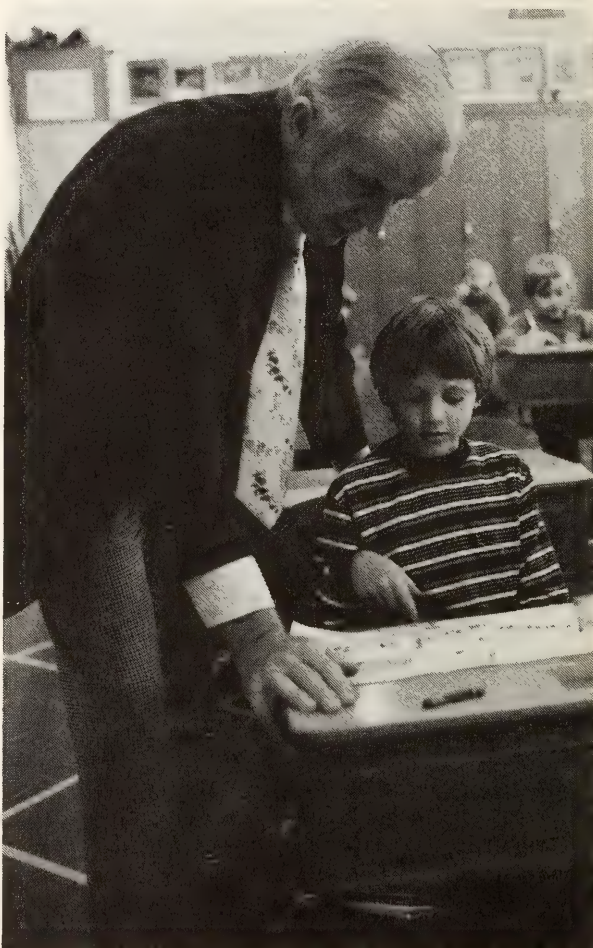
Students who are interested in teaching can enroll in the College of Education and pursue a Bachelor of Science degree with the knowledge that they are completing programs approved by the National Council for Accreditation of Teacher Education and the State Certification Board in Springfield. Programs leading to teacher certification in Illinois are offered in elementary education, early childhood education, early childhood preschool education, special education and 25 secondary education majors. The special education major, which offers specialization in the education of the behaviorally disordered, education of the mentally retarded, and education of the learning disabled, has always been a popular one. The early childhood education preschool specialization is offered jointly with the Department of Child and Family in the College of Human Resources. This program has been specifically designed to prepare future teachers of children under six years of age, an age group on which more and more educators are focusing attention.

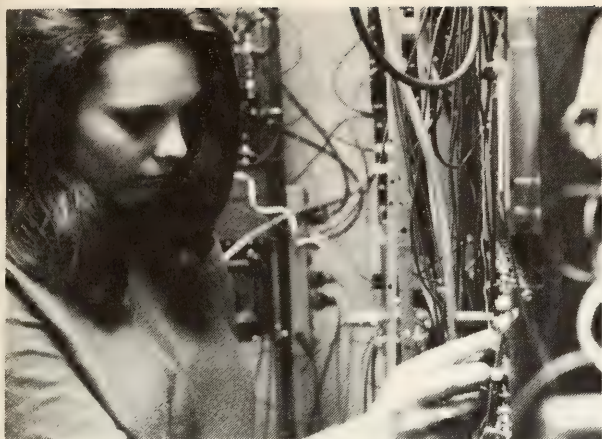
The Teacher Education Program at Southern Illinois University at Carbondale offers a wide variety of elementary and secondary school classroom experiences for the prospective teacher. In such experiences, students participate with certified teachers in planning, delivering, and assessing learning experiences for children and adolescents. Student teaching, the final professional education classroom experience in the Teacher Education Program, is possible in a number of public school teaching centers in communities in Illinois. Student teaching centers are located not only in southern Illinois cities such as Carbondale, Herrin, Marion, and Mt. Vernon but also in Quincy, Belleville, Springfield, Chicago, and the suburban Chicago area.

The Department of Recreation within the college offers a non-teaching major which prepares students for positions in the management of man's leisure time pursuits. There are five different specializations from which students may

choose: 1) park and community recreation, 2) recreation and special populations, 3) outdoor recreation, 4) commercial recreation management, and 5) program specialists. The Department of Vocational Education Studies offers programs which are designed to prepare persons for teaching, supervisory, and leadership roles in elementary schools, secondary schools, colleges, military, and industry in many different areas of vocational and pre-vocational education.

Graduates from SIU now teach in all 50 states and in many foreign countries.





School of Engineering and Technology

Engineering and technology are relatively young at SIU; hence, it has been possible to develop study programs that clearly conform to presently understood definitions of engineering, engineering technology, industrial technology and mining technology curricula. The programs are modern and prepare graduates for a wide range of jobs in industry and government agencies. SIU is one of relatively few institutions offering such a broad spectrum of training for the engineering and allied engineering professions. All options under engineering as well as the specializations in engineering technology are fully accredited by the Engineers' Council for Professional Development (ECPD). The industrial technology program is fully accredited by the National Association of Industrial Technology.

Faculty members of the school have been carefully selected, with attention not only to their formal training (most have the Ph.D.), but to experience in industry as well. Further, they have come from a wide range of front-rank institutions; the 40 faculty members holding academic rank in the school received degrees from some 33 different universities in the U.S. and abroad. Small classes, interested faculty, and faculty involvement with student organizations have encouraged close student-teacher relationships.

Experienced faculty members, chosen for their interest and ability to relate to students, handle program advisement.

Facilities are new, modern, and attractive. The engineering and technology building complex, completed in 1967, is located adjacent to campus lake. Laboratory equipment is new and of preferred quality; nearly all of it has been bought for the new building.

Opportunities in engineering and technology are excellent for the foreseeable future. Young men and women interested in meeting society's needs through the application of technological know-how are encouraged to consider one of these challenging fields.



College of Human Resources

People-oriented career education for today's concerned generation is the thrust of the College of Human Resources. Its primary intent is to train professionals to work on the solution and/or amelioration of contemporary social problems.

Administration of justice and social welfare are two rapidly growing fields of study at SIU today. With one federal and three state prisons located in southern Illinois, the facilities, faculty, and practical experience in administration of justice made SIU one of the most respected training centers in the Midwest. One of the basic objectives of the social welfare program is to prepare students for immediate employment in social work positions. Two of the basic courses in the curriculum are field experience courses.

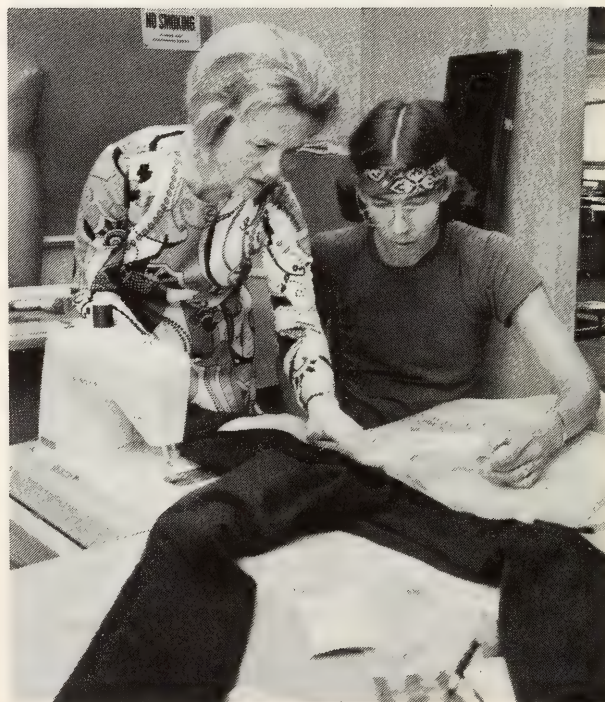
The design program offers the challenge of a professional commitment to creative design tempered by a humanitarian approach to solutions to protect man and the environment.

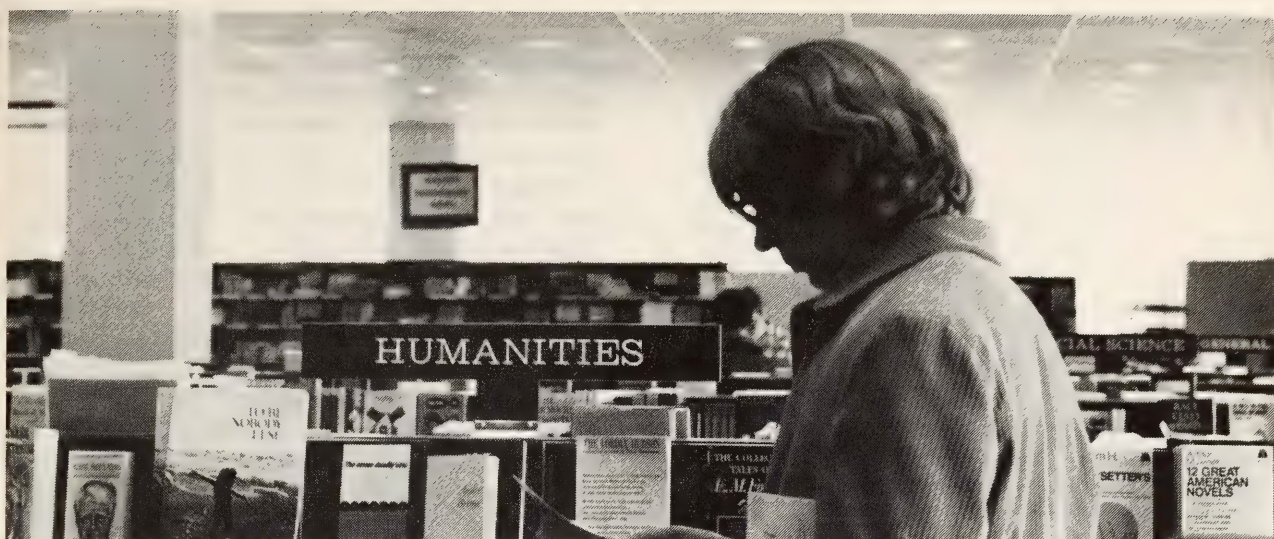
The interior design department offers a concentrated course of study in interior design. Through emphasis on professional

interior design problems and standards, architectural technology, art, graphic design, business practice, and the history of architecture and interior design, the student receives a comprehensive, interdisciplinary education in preparation for designing and administrative positions in fields of residential, commercial, and contractual design. The program is one of only a few in the nation accredited by the Foundation for Interior Design Education Research.

Students can also receive functional training in areas identified as child and family, apparel design and retailing, food and nutrition, and family economics and management. Child and family majors offer basic background leading to positions as nursery school directors. The program also offers a preschool/early childhood certification specialization. Retailing students can participate in summer study/travel programs in Europe to study merchandising and international marketing. Food and nutrition provides the largest dietetic program in Illinois. Food and nutrition also offers specializations in foods and lodging, systems management, foods in business, and food and nutrition science. The program in family economics and management offers a specialization in consumer services in business and also a family service consultant specialization.

Students also have the opportunity to pursue a black American studies minor or design their own special program in black American studies.





College of Liberal Arts

The College of Liberal Arts includes 14 departments: anthropology, computer science, economics, English, foreign languages and literatures, geography, history, linguistics, mathematics, philosophy, political science, psychology, religious studies, and sociology. Ten offer advanced study leading to the Ph.D. degree, and the graduate programs in anthropology and psychology are ranked by professional associations as among the leading programs in the nation.

Opportunities for students are almost limitless; for example, they can study to become teachers, climatologists, city planners, archeologists, linguists, lawyers. Since the vast majority of law schools want their candidates to have a broad liberal arts education, the college maintains a pre-law advisory committee (lawyers and others) with special insight into preparation for this popular field. It meets with interested students to help them plan their pre-professional studies.

Also, in many liberal arts courses students attain a more mature understanding of themselves and of their place in the world. For example the Department of Psychology is guiding students in research on such topics as the effects of brain damage,

encounter and sensitivity groups, and gaining control of impulsive behavior. The Department of Sociology develops students' insight into the world around them through the study of such contemporary problems as health care, poverty, race relations, crime, alcoholism, and drug addiction. The department also offers courses which analyze key social movements such as Black Power and Women's Liberation.

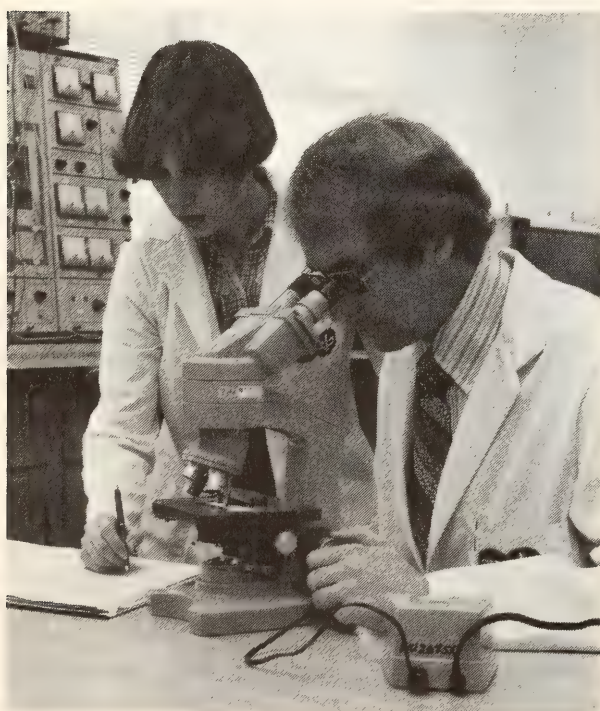
Through the Department of Political Science students may earn credit while working as interns in an actual political environment, as in a political campaign; for the state's attorney; in a regional planning agency; or in a city manager's office. The Department of English has special courses to develop creative writing skills or to train the pre-professional student in careful, precise reading and writing. The department's teachers include several literary critics of international reputation.

The Department of Foreign Languages and Literatures offers not only thorough studies of European languages and literature, but cooperation with other departments in so-called inter-disciplinary majors in Asian studies, inter-American studies, or studies of ancient Greece and Rome. These, in turn, are enriched by the Department of Religious Studies program, which seeks to develop the student's appreciation of the role of religion in human experience, from the archaic and primitive to Judaism, Mohemmedism, religions of the Far East, and Christianity.

Finally, the Department of Computer Science prepares students for jobs in business and government which require the mastery of information processing and of computers and computer programming.

College of Science

The College of Science offers baccalaureate, master's, and doctoral degrees in the life sciences (biological sciences, botany, microbiology, physiology, and zoology) and the physical sciences



(chemistry, engineering biophysics, geology, and physics). In addition, well established pre-professional programs in dentistry, medical technology, medicine, pharmacy, physical therapy, and veterinary medicine are available to students either immediately upon registration or after completing the General Studies requirements of the University.

The philosophy and aim of the College of Science is to provide academic programs which give students a sound command of basic principles, versatility of mind, insight and perspective concerning scientific phenomena and the habit of continued learning. It maintains a commitment to foster for its students those qualities of intellect and character which distinguish truly educated men and women sensitive to the problems of man and his environment and dedicated to their resolution. The continuing search for new methods of teaching, rapid assimilation of new knowledge into teaching programs, and constant emphasis on self-criticism are evidences of the faculty's commitment to maintain and extend high quality in professional standards for its teaching and research.

New areas of scientific enterprise and educational pathways, presently called interdisciplinary approaches which constitute the true scientific disciplines of tomorrow have already been initiated to channel the student along modern educational paths worked out by cooperative efforts of scientists from various areas. This is to ensure that students will be prepared as adequately as possible for coping successfully with the manifold new problems which they will have to face as leaders in a highly advanced scientific technologic society.

Students may pursue specialized training and research with the most current scientific equipment available. Several spacious air-conditioned buildings house classrooms and research laboratories. The large vivarium is considered to be one of the best in the country. Other facilities include a library of well over 1.7 million volumes, computer units, a series of experimental ponds, shops to aid in design and construction of research needs, a ten-acre wildlife enclosure, and four outdoor laboratory accommodations. The geographic location and physiographic features of southern Illinois offer unequal opportunities for the use of natural and man-made environments in teaching and research.

Graduate School

At Southern Illinois University at Carbondale, the primary concern of the Graduate School is graduate instruction and research. The Graduate School therefore plays an essential role in development of instructional and research programs, in acquisition of funds, and in procurement of facilities necessary to encourage and support research by members of its scholarly community. Through students who meet the Graduate School's high standards of achievement by completing advanced courses of study and through students and faculty members who achieve significant results in their research, the Graduate School makes its contribution to the public welfare of the region, the state, the nation, and a number of other countries.

Master's degrees are available in the major fields listed below

Administration of Justice
Agricultural Industries
Animal Industries
Anthropology
Art
Biological Sciences
Botany
Business Administration
Business Education
Chemistry
Community Development
Computer Science
Early Childhood Education
Economics
Educational Administration
Elementary Education
Engineering
Engineering Biophysics
English
English as a Foreign Language
Foreign Languages and Literatures
 French
 German
 Spanish
Forestry
Geography
Geology
Guidance and Educational Psychology
Health Education
Higher Education
History
Home Economics
Home Economics Education
Instructional Materials
Inter-American Studies
Journalism

Latin American Studies
Linguistics
Mathematics
Microbiology
Mining Technology
Music
Occupational Education
Philosophy
Physical Education
Physics
Physiology
Plant and Soil Science
Political Science
Psychology
Public Affairs
Public Visual Communications
Recreation
Rehabilitation
 Behavior Modification
 Rehabilitation Administration
 Rehabilitation Counseling
Secondary Education
Sociology
Special Education
Speech
Speech Pathology and Audiology
Theater
Zoology

Specialist degree programs are available in the fields listed below

Educational Administration
Elementary Education
Guidance and Educational Psychology
Secondary Education
Special Education

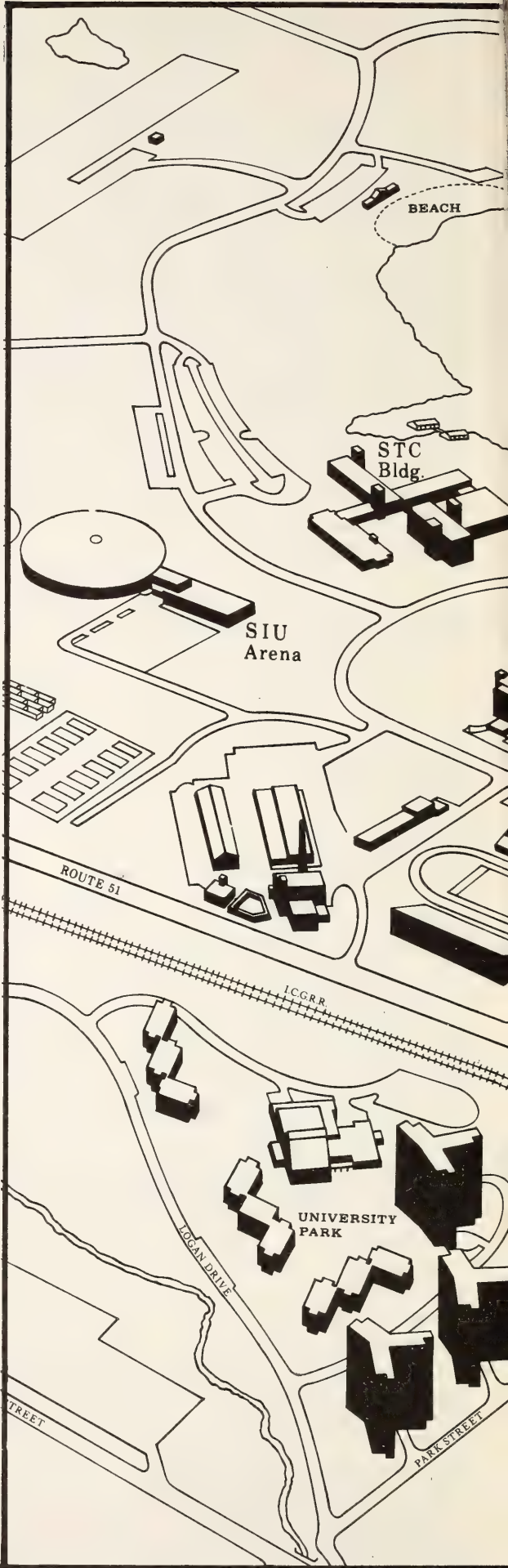
Doctor of Philosophy degree programs are available in the fields listed below

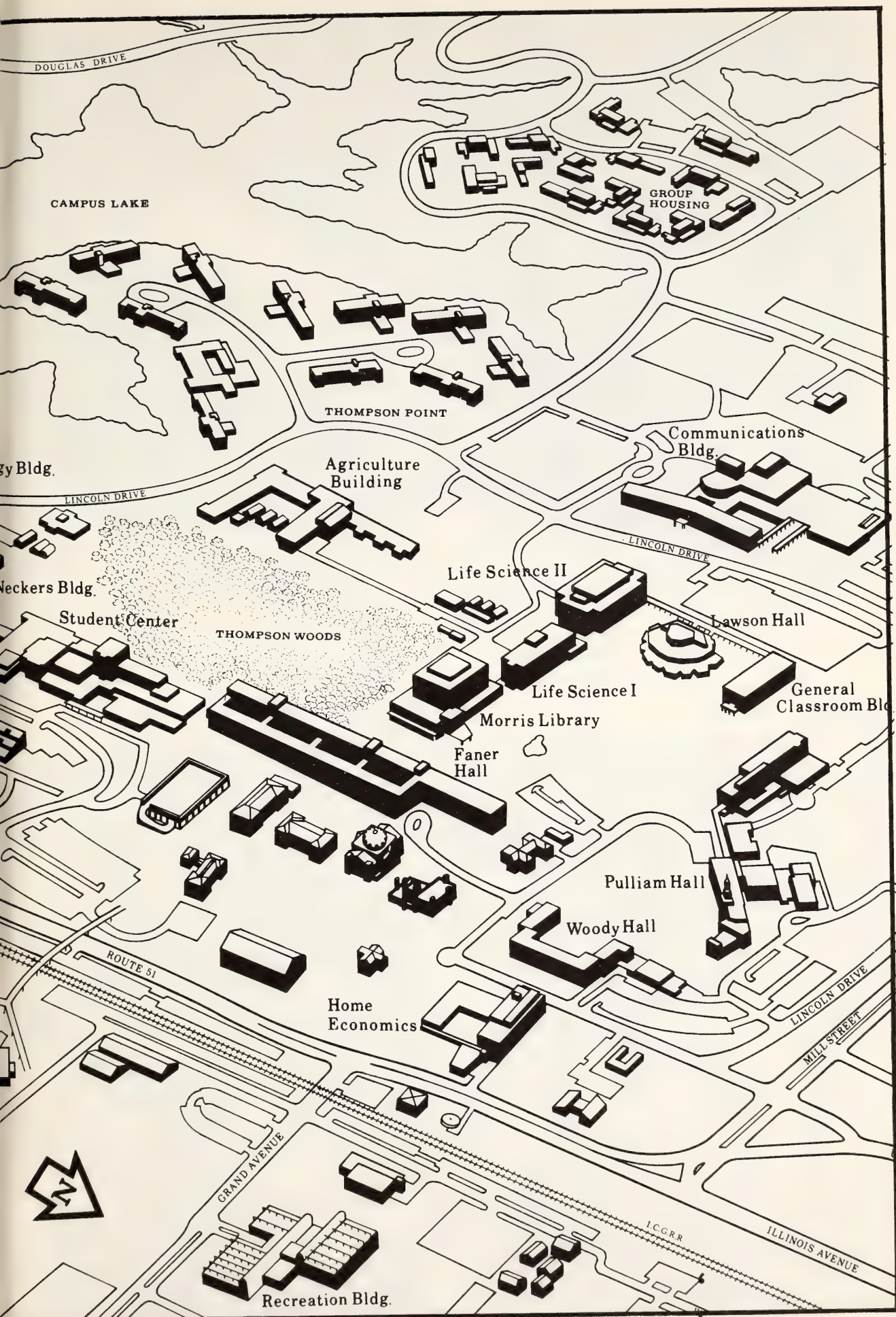
Anthropology
Botany
Chemistry
Economics
Education
English
Geography
Historical Studies
Journalism
Mathematics
Microbiology
Molecular Science
Philosophy
Physiology
Political Science
Psychology
Sociology
Speech/Theater
Speech Pathology and Audiology
Zoology

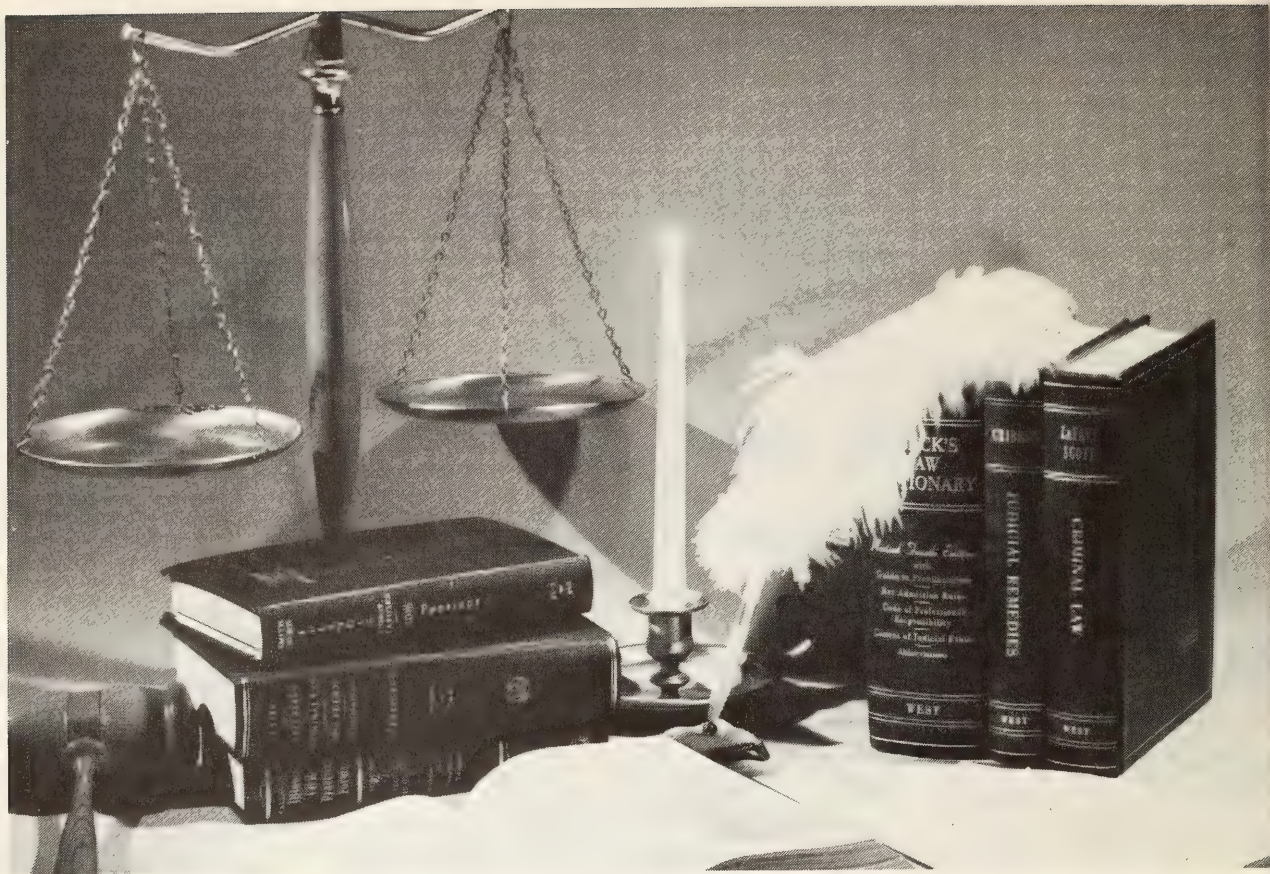
Campus Map

Prospective students and parents should note the location of Woody Hall. The Office of Admissions and Records is located in this building and its School/College Relations Division will make or will have made arrangements for you to tour the campus or visit with various service or academic departments.

Parking is suggested in the lots near the Student Center or directly behind Pulliam Hall. The parking lot directly north of Woody Hall is metered and limited to 30 minutes.







School of Law

The SIU School of Law program had a big head start when it opened in 1973.

Hiram H. Lesar, respected dean of the School of Law at Washington University, came to SIU as the school's first dean. The nucleus of a strong faculty, experienced in legal practice and teaching, joined him in the venture. The first-year class of law students entered in September, 1973.

The main purpose of the School of Law is to train lawyers who will be competent to practice both now and in the future. This involves more than teaching specific legal rules. It includes additional emphasis on analytic skills, research techniques, and the basic legal principles and policies underlying those rules.

When a new School of Law building

is built, plans are for an enrollment of 350 to 450 students, with a faculty of approximately 25. In the meantime, the school occupies two adjoining buildings in Small Group Housing near Lake-on-the-Campus on the main campus. One building houses the library; the other, classrooms and offices. They provide entirely adequate facilities for a school of 200 students.

Law studies span three years (90 semester hours) and lead to the Juris Doctor (J.D.) degree. The first-year curriculum includes the most basic courses and is required. Second- and third-year courses, mostly elective, will be offered in all major fields of law. Students who wish can therefore take a number of courses in such specialized areas as administration of criminal justice, business, civil litigation, legal problems of the disadvantaged, managing the environment, public law, taxation and estate planning, and international law.

Southern Illinois University at Carbondale also gives special attention to those students interested in a pre-law education providing a pre-law advisory committee which meets regularly with interested students.

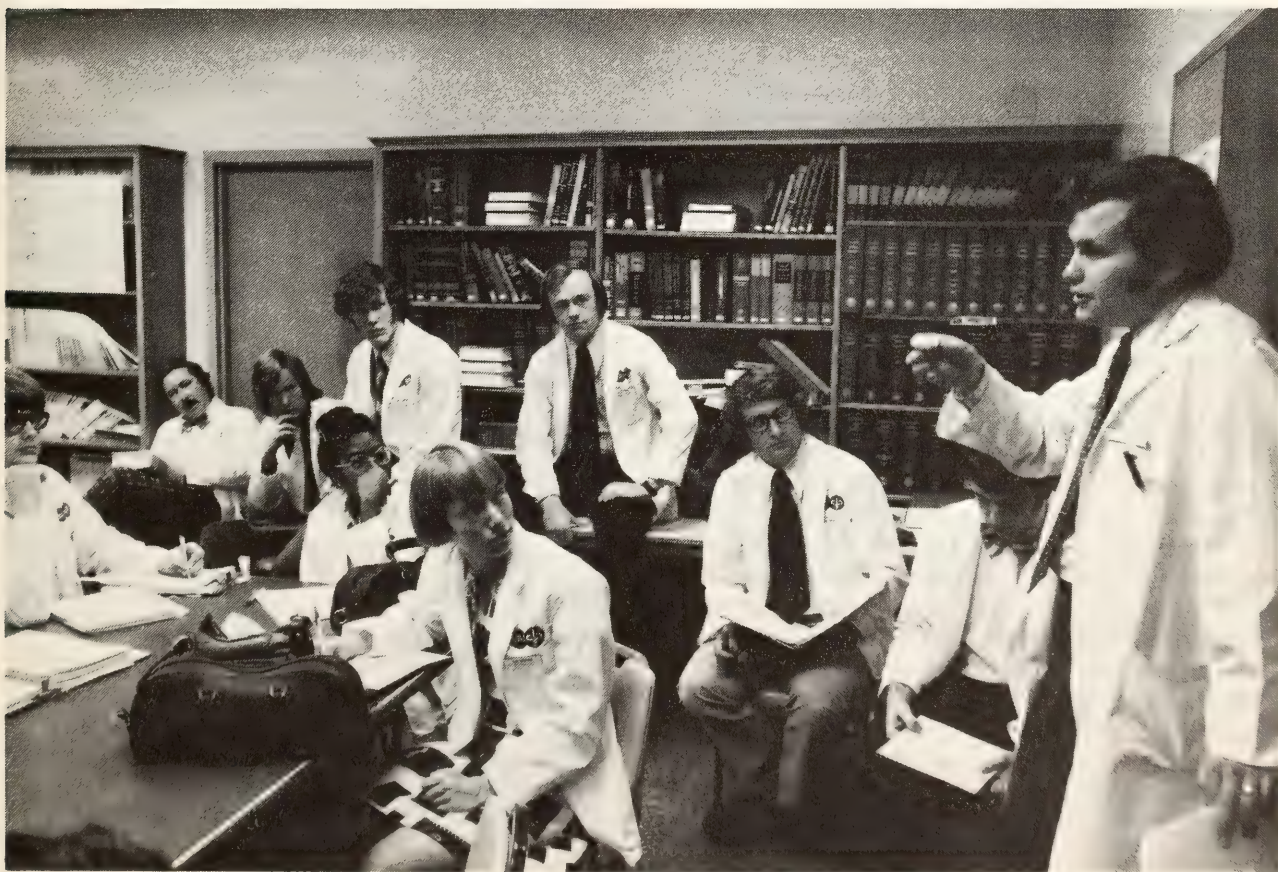
School of Medicine

Southern Illinois University School of Medicine conducts a three-year program leading to the M.D. degree. The first twelve months of the program are located at medical education facilities on the Carbondale campus; the continuing twenty-four months at the medical center in Springfield. This split-campus organization allows the School of Medicine to make full use of existing University resources and the long-established and excellent clinical facilities in Springfield at Memorial and St. John's hospitals. The arrangement strengthens the school's commitment of academic support to practicing physicians throughout central and southern Illinois.

The curriculum is flexible and is intended to be innovative. Faculty is drawn from the University and from the

medical communities in both Carbondale and Springfield. Planning was guided by the principles of speed of development, maximum use of existing facilities (human and physical), shortening of education time, emphasis on education for practice in Illinois, and bringing the practicing physician and private health facilities back into education.

First year students master those sciences basic to medicine: physiology, biochemistry, microbiology, and psychology. To enhance the learning experience, the curriculum is organized around organ systems rather than traditional disciplines and includes considerable clinical medicine. The intent is that the learning experience itself demonstrates to the students the inter-relationship of their studies with clinical medicine. In addition to the basic sciences, students also study medical sociology, health care systems, and the history and philosophy of medicine. Since one of the goals of medical education is that graduates will be lifetime self-starting learners, the curriculum is designed to foster this. It sets clear performance goals for each learning experience and gives students substantial latitude in choosing the instructional methods and materials to achieve the competencies expected.



Special Degree Programs

University Studies

The University Studies degree program is offered to serve the student who wants a broad general education without specialization on the undergraduate level. This program allows the students outline their own curriculum with few restrictions.

Students who have completed one year of college level coursework with a 2.25 grade point average ($A=4.0$) may petition to enter the University Studies program. The program is administered by the dean of General Academic Programs. Student, basically, devise their own curriculum from the course offerings of the various colleges and schools within the University, but within the framework of the University Studies majors. The student pursues either the Bachelor of Arts or the Bachelor of Science degree in University Studies.

President's Degree

The President's Degree program is designed to provide a distinctive educational experience for selected students who have high motivation and talent and who are interested in pursuing a program concentration of interdisciplinary studies at the undergraduate level. The objective of the program is to create a learning environment best suited to the needs and talents of these students.

Students whose scores are in the top seven percent on national tests, and who rank in the top ten percent of their high school class are eligible to apply for admission as freshman. Continuing and transfer students should have a $B+$ average to warrant consideration for admission to the program.

President's Degree students choose an appropriate faculty adviser to help them plan a logical and challenging curriculum. Participants may remain in the program as long as they are able to show they are obtaining benefits consistent with the President's Degree objectives, and as long as they maintain a B average. The President's Degree Program leads to the Bachelor of Arts or the Bachelor of Science degree.

Project Capstone

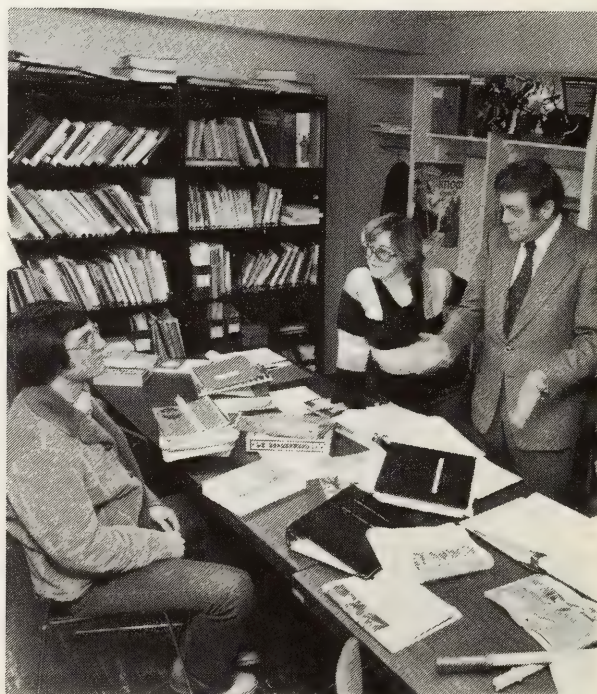
Project Capstone enables community college graduates in occupationally-oriented programs to complete a baccalaureate degree with two additional years of schooling. The end product is a graduate ready for a management position or for occupational instruction.

Participants are selected with the aid of community college personnel. Students are expected to have completed an associate degree in an occupational specialty. Also considered are grade point averages, successful work experience in the student's specialty area, success in high school, and references.

Through Project Capstone, Southern Illinois University at Carbondale hopes to design a variety of model bachelor's degree programs building directly upon skills gained in community colleges and in the world of work.

Special Major

A student with academic needs not met in an existing major may arrange a special undergraduate degree program in lieu of a standard curriculum. This special major is developed by the student, in consultation with a faculty sponsor, to fulfill special needs and interests. The degree is granted by the appropriate academic unit in the University.





Special Programs

Touch of Nature

The Touch of Nature Environmental Center is offering a three-level course program for high school students to provide them with a better understanding of current environmental problems. These are not classroom courses but are outdoor learning experiences: feeling nature, getting deeply involved with plants, forests, lakes, and various kinds of wildlife. Touch of Nature consists of 6,500 acres of rolling hardwood forest, meadows, caves, plus the thousand-acres Little Grassy Lake as well as numerous other natural areas. Workshop participants live in heated, well maintained cabins and are provided with meals noted for their quality.

Early Admission/Concurrent Enrollment

Many high-caliber students want early assurance that they can be admitted to the University, so they're considered special, too. The Early Admission Program permits exceptionally capable high school students (recommended by their school and approved by the University's director of admissions) to enroll in college level courses.

High school juniors (seniors to be) can enroll in up to 9 semester hours during the summer term and/or can take credit concurrently during the senior year.

Proficiency Examination and Advanced Placement

Through its Proficiency Examination and Advanced Placement programs, the University recognizes the importance of encouraging academically talented students. A total of 30 semester (45 quarter) hours of college level credit may be applied to the student's record from various proficiency examinations and the CEEB Advanced Placement Examination.

Pass/Fail

A qualified student may register for some courses on a *Pass/Fail* basis. The purpose of this grading option is to allow students to explore fields outside their major competence in a relaxed manner and without competing for grades with majors in that field.

Honors Work

Most departments offer special honor courses, honors sections in regular courses, and independent reading and study courses which are open to all qualified students. Individual honors work is available (in major studies) for the outstanding student who wants a heavier concentration of research or independent study in junior and senior years.

President's Scholars

The President's Scholar program is designed to enable academically talented students to profit from an association with each other, to achieve maximum flexibility within the framework of the general University curriculum; and to take fullest advantage of the talents and resources in the University.

A council of president's scholars works with the scholars staff to advance the program and to develop special courses and activities. The staff helps the scholars, individually and in groups, to obtain the best curricular and extra-curricular conditions for excellent and rewarding academic work. The program has no rigid curriculum; it is intended to provide the flexibility necessary for the individually styled education especially appropriate to superior students.

Test scores and high school standing provide the basis for inviting entering freshmen to participate in the program.

Student Services

Student Services are rarely emphasized when talking about college choices, but they are essential to your well-being after you are on campus. You certainly won't be pampered at SIU, but you will find a genuine effort to provide the support you will want and need in order to get the most from your college experience.

Specialized Student Services is a good example of the University's concern for the individual. Most handicapped students meeting the University's academic qualifications will be admitted and will be provided the assistance required to make their educational experiences meaningful and rewarding. Assistance includes counseling for specialized needs, help in finding attendants, an emergency wheelchair repair service, a transportation

service, and even the scheduling of individual exams where required by the disability.

If you are in a wheelchair, you will find ramps and elevators and a continuing effort to achieve a campus community free from architectural barriers. You will find opportunities to participate in wheelchair athletics and similar activities. Special arrangements are provided for parking and for attendance at events in the SIU Arena and campus auditoriums.

If you are a sightless student you will find Braille reference books and tape recorded material in the audio-visual center of the library. A unique sound-beacon system provides "beeper" stations around campus with information in Braille giving present location, the direction you are facing, and directions to buildings and streets. This system was researched and developed at SIU.

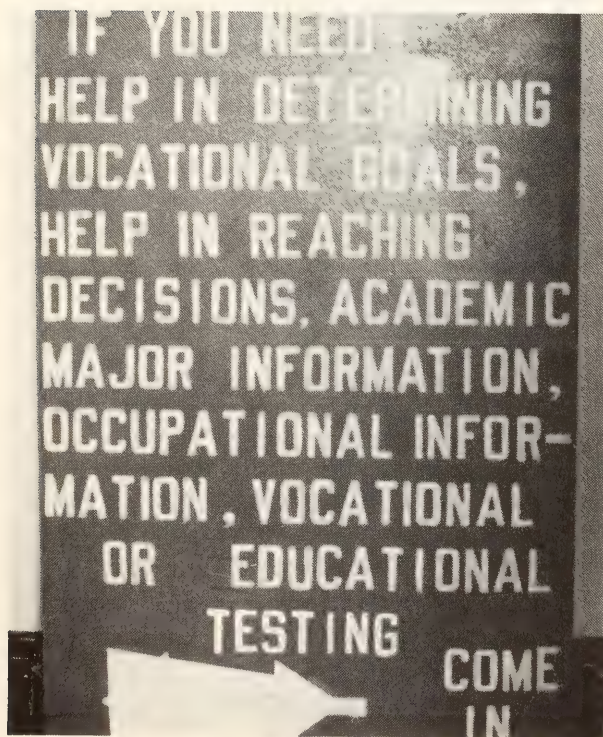
Sound reinforcement by means of earphones and jacks is installed in various lecture halls for students with impaired hearing.

A comprehensive health care program provides a full range of medical services for all SIU students. Included is twenty-four-hour emergency and ambulance service, hospitalization coverage, specialty care, major medical coverage and out-patient care. Preventive health care is emphasized through such concerns as drug abuse and sexuality problems.

The Counseling Center provides professional, confidential counseling for mild temporary problems, as well as for serious psychological counseling which provides an opportunity to accelerate your personal growth in a group situation. Topics include sex-role awareness, effective interpersonal relationships, self-modifications skills, assertive training, and empathy training.

Testing services for pre-admission, graduate school, and pre-professional examinations are available, as well as a wide variety of aptitude and academic proficiency tests.

With so much emphasis today on employability, you will want to know about the Career Planning and Placement Center. This is a service to help you make career choices, identify employment alternatives, and find preferred jobs. This office keeps current information about employment opportunities and maintains ongoing communication with potential employees in industry, government, business, and education. These services continue to be available to you even after graduation.



Career Planning and Placement

Coming to a large university affords many horizons in terms of curriculum, major fields of study, and complementary opportunities. You may find that you need to do some exploration and clarification to discover what program is best suited to your interests, abilities, and potential for satisfying employment.

The resources of the Career Planning and Placement Center (CPPC) are available to you for just that reason. Proficiency exams are available through our testing unit. You may earn up to 30 semester hours of credit by successfully completing these exams prepared by academic units. Career counselors will work with you on a one to one basis to help you in discovering your interests, competencies, and your most meaningful avenue of academic pursuit. A library holding a wealth of occupational information is available at the Career Counseling Office. This unit also sponsors a variety of group activities where peer interaction is the mode of career decision making and exploration.

Once you have selected your major field of study you may elect to participate in the Cooperative Education Program sponsored by CPPC. Coop is an optional educational pattern that integrates periods of paid career-related work experience into academic programs. This can be either full-time work every other semester or part-time work every semester.

As you approach the final stages of your undergraduate experience, planning for your first professional job will become more and more important. The placement services of CPPC will help in all aspects of your job search. Each graduating student can establish a credential file which is sent free of charge to prospective employers even after you graduate. Placement consultants can advise about letter and resumé writing and help you define the strategy which will secure the kind of position you prefer. The Placement Office invites recruiters to campus so that students may interview with them. Vacancy bulletins are distributed weekly to persons seeking employment.

The Career Planning and Placement Center believes that the college student is wise in making an effort to understand himself or herself and in planning for the future. If you are able to identify and clarify your strengths and alternatives, you will be better prepared to face the challenge of a changing world of work and be more assured of reaching self-actualization.



Student Work and Financial Assistance

Southern Illinois University at Carbondale is proud of the many programs administered by the Office of Student Work and Financial Assistance to provide an opportunity for students to matriculate at the University and continue in higher education.

The philosophy of the Office of Student Work and Financial Assistance is to provide a package of financial assistance including scholarships, if warranted; grants, if need is shown; work, for all students who desire it regardless of financial need; and loans, to satisfy the balance of their individual needs.

In the 1976-1977 academic year approximately 16,000 students of the 22,000 enrolled received some form of financial aid. Directly or indirectly, the University administered over \$25 million in financial assistance through a wide range of federal, state, and institutional programs.

SIU supports one of the largest on-campus student work programs in the nation. With an annual student wage budget exceeding \$4½ million and more than 200 different job classifications, the student work program can provide a large portion of the money needed for a college education. Every effort is made to place students in campus jobs directly related to their academic interests. Valuable work experience can significantly complement academic goals.

All Illinois undergraduates are urged to apply for the (ISSC) Illinois State Scholarship Commission Monetary Award for the payment of tuition and fees. This is the initial step that should be taken as a portion of the financial aid package for attending SIU. All undergraduate students are urged to apply for the Basic Educational Opportunity Grant (BEOG) Program.

All students must file an American College Testing Program Family Financial Statement (ACT/FFS) in order that the Office of Student Work and Financial Assistance can determine the financial assistance programs for which they may qualify. The Parents Confidential

Statement (PCS) is not acceptable substitute for the ACT/FFS.

Types of Financial Assistance

Scholarships

Illinois State Scholarship Commission
Monetary Award
Southern Illinois University
Junior/Community College
National Collegiate Athletic Association
Illinois Military

Grants

Basic Educational Opportunity
Supplemental Educational Opportunity

Loans

National Direct
Guaranteed (In-State and Out-of-State)

Work

On-Campus Student Work
Off-Campus Student Work
Federal Work-Study (On-Campus)
College Work for Academic Credit

Other

Veterans Benefits
Social Security Benefits



Housing

SIU has resolved to create and maintain in residential facilities: a physical environment conducive to study and academic excellence; an interchange of ideas among students and associates; an awareness of the needs and aspirations of students living together in groups; support of highest health and safety standards; and quality food service at reasonable cost. Constant improvement is a watchword.

While continually striving to maintain housing facilities at the highest standards possible, the University is also aware of student needs. In recent years housing regulations have been modified to meet changing student life styles and to acknowledge students as adults. To meet these objectives many options are now available in campus housing. These include single residence rooms, choice of roommate, special housing for President's Scholars, greater housing selection for upperclassmen and graduate students, and 24-hour visitation rights if students so desire them. Except for beginning freshmen, students may also elect to reside in residence halls where men and women live in alternating suites on each floor with each suite having its own private bath facilities. And, of course, students can choose family housing in two locations on campus.

Special provisions also prevail for students who have scheduling difficulties with regard to dining hours. They may obtain a bag lunch to take to class if a meal time conflicts with one of their classes.

Accommodations at Thompson Point are available in eleven units for 1,347 students. Centralized Lentz Hall provides library and post office facilities and food services in five dining rooms. Room, board, and telephone and weekly linen services are included in contract costs. Each residence hall contains a classroom and a resident counselor's apartment. Each floor includes a resident fellow's room, and two rooms on the first floor of each hall are modified for paraplegics. Halls cluster around Lake-on-the-Campus, a 40-acre spring-fed lake surrounded by 25 acres of wooded land and developed for boating, fishing, swimming, and picnicking.



University Park and Brush Towers include three 17-story towers, the men's triads, and two commons buildings. Each of the towers houses 816 students; each of the triads, 330. Neely and Mae Smith Halls provide coeducational housing. Schneider Hall is for men. Each commons building contains a cafeteria, dining rooms, snack bars, game room, television room, post office, and administrative offices. The three towers and two commons buildings are air conditioned, and all rooms have telephones.

Evergreen Terrace and Southern Hills are housing areas for married students. Evergreen Terrace provides 304 two-bedroom and three-bedroom apartments, unfurnished except for refrigerator and range. Southern Hills' 17 buildings include 144 efficiency, one-bedroom, and two-bedroom furnished apartments.

Off-Campus Housing

University Housing also attempts to influence both the availability and quality of off-campus housing with respect to the educational and economic needs of students.

Approximately two-thirds of the student body live in off-campus facilities which include apartments, trailer courts, and privately-owned residence halls.



Morris Library

One of the nation's largest academic libraries is the centerpiece for Southern Illinois University at Carbondale. Seven-story Morris Library contains over 1.7 million volumes, over 11,000 current periodicals, and a comprehensive collection of textbooks, journals, papers, maps, films, art works, rare books, and microfilmed, taped and recorded materials.

Since libraries are primary to a college education, the University has given special attention to the quantity and quality of library development. More volumes were added last year, placing SIU among the nation's high-growth libraries. Reference specialists throughout the library are available to assist in locating material. A handbook on library use is available and those who want further instruction may enroll in a course on library research methods.

Morris Library is built around four subject libraries (education, humanities, science, and social studies), a Reserve Reading Room, and the Learning Resources Service self-instruction center. Micro-text reading equipment is available in each subject library; hi-fidelity phonograph listening equipment is

provided in the humanities library. A central card catalog of the entire collection is located on the first floor; books may be borrowed from a central circulation desk using an automated charging system. Inexpensive coin operated photocopying equipment is available to you on every floor.

The Learning Resources Service makes films and other audio-visual material available to individuals or small groups in much the same way as books are available through the reserve system. The service generates 3,000 film showings per week. The service designs, produces, and uses graphics and audio-visual aids to support all teaching activity at SIU.



Inter-Collegiate Athletics

Southern Illinois University boasts one of the country's best all-around sports programs. The Salukis compete successfully in the National Collegiate Athletic Association's Division I, which includes the nation's top 126 athletic programs.

In the last 15 years, the Salukis have won national team championships in basketball; gymnastics, cross country, and golf as well as hundreds of individual national championships in all eleven intercollegiate sports.

The Saluki athletic program was recently enhanced with the admission of SIU into the Missouri Valley Conference. In addition to its strength in several

other sports, the Valley is recognized nationally as one of the top two or three basketball leagues in America.

Recent highlights for men's athletics include the 1977 Missouri Valley Tennis Championship, 1976, 1977 Missouri Valley Track Championships, 1977 Central Collegiate Track Championship, as well as an eleventh finish in NCAA indoor track. The track program annually ranks among the nation's top 15 teams, whether it be cross-country, indoors, or outdoors. The Salukis are a feared contingent on the Florida, Kansas, Drake, and California relays circuit. The SIU men also won the 1977 Missouri Valley Basketball Championship and participated in the NCAA Basketball Tournament. The Saluki baseballers, twice runner-up in the College World Series, won the 1977 Missouri Valley Baseball Championship and are on their way to another College World Series with their current third place ranking in the NCAA. The Saluki swimmers finished 16th in the NCAA for 1977 and the gymnastics team finished 8th in the NCAA. Football too has taken on a new look with the addition of former Chicago Bears great Gale Sayers as SIU's new athletic director and Rey Dempsey, former assistant coach with the Detroit Lions, as the new head football coach.

A rising women's athletic program entails competition in eleven sports. The SIU women own their own share of national and state titles. The SIU women's gymnastic team in particular have brought SIU world wide recognition with their repeated national championships.

Facilities have played a big part in the development of the sport program. McAndrew Stadium, which is used for football and track, has undergone a renovation project which includes the addition of new seating and installation of synthetic turf.

The 10,000-seat SIU Arena hosts basketball, wrestling, and gymnastics meets and is one of the nation's finest multipurpose buildings. In addition to its durable floor and excellent seating, the arena has lights with sufficient power for color telecasting.

The tennis teams have 12 lighted courts which are available to students when the varsity teams are not practicing or holding meets. The swimmers make the pool at Pulliam Hall their home.

A combination of talented men and women athletes, outstanding facilities, and knowledgeable coaches makes this University's athletic program among the nation's best.



Recreation/ Intramural Athletics

To complement the many social and professional organizations as well as over 3000 sponsored student activities, SIU offers students extensive opportunities and facilities for recreation and athletics.

Students who love the outdoors regularly take advantage of the facilities available at over 8 major lakes and 11 state parks. Hiking, camping, fishing, hunting, swimming, and sailing are regular activities for the SIU student.

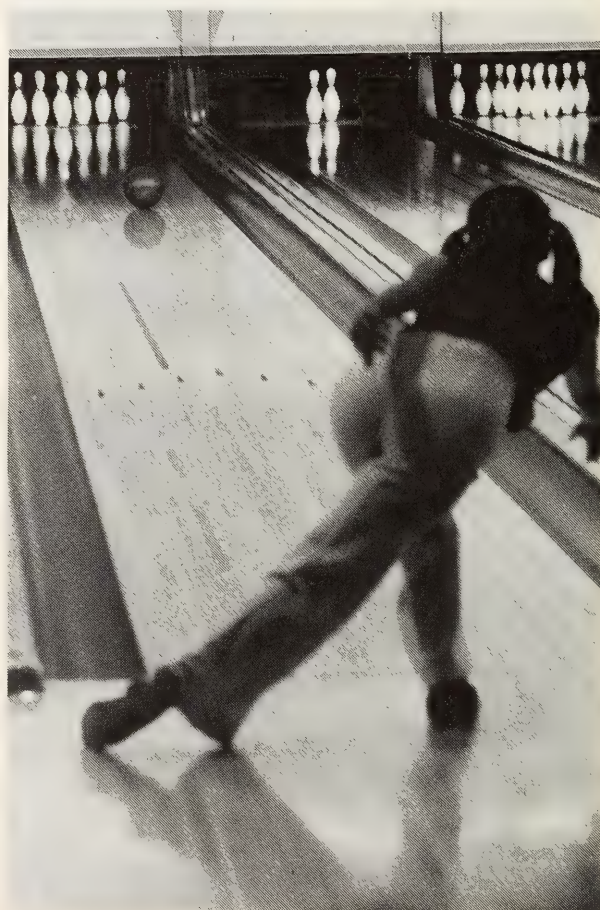
If you enjoy athletic competition then the men's and women's intramural athletic program may be just your ticket. Sports for everyone regardless of ability is available. Competition in a variety of sports takes place throughout the year and many events are coed. Students compete against each other in sports such as

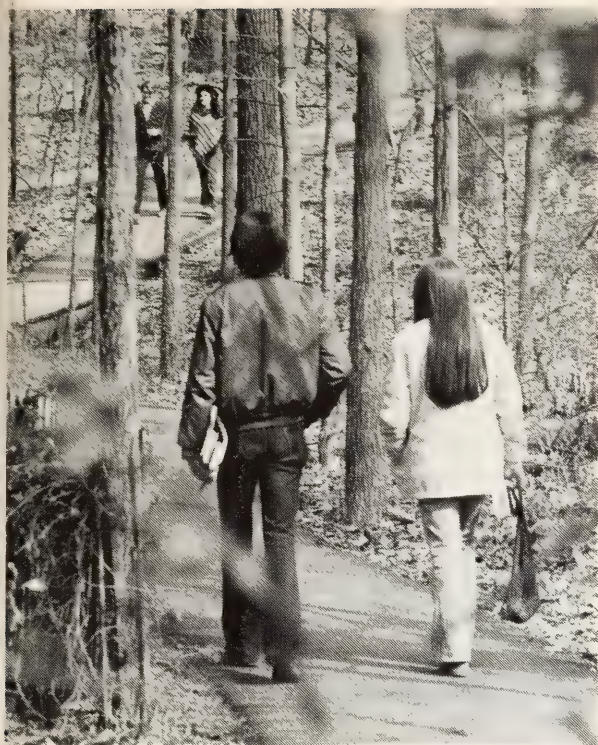
badminton, gymnastics, swimming, basketball, softball, tennis, handball, flag football, wrestling, soccer, volleyball, bowling, inner tube water polo, racquetball, track and field, canoe racing, fencing, frisbee, and even horseshoe pitching.

Facilities play a big part in recreation time and SIU provides the best. Lighted tennis courts, handball and racquetball courts, bowling alleys, billiard rooms, and table tennis rooms are all available presently.

Students who attend SIU starting in 1977 will have an opportunity not only to take advantage of existing facilities but will also be able to utilize the new recreation building opened in June 1977. The recreation building contains 140,000 square feet of space and includes an olympic-size swimming pool, eight handball courts, large gymnasium, three basketball courts, judo, karate and boxing rooms, weight lifting room, golf driving rooms, saunas, student lounge, and much more.

All these facilities will be available to you when you attend SIU. They complement your academic experience and provide many hours of fun and relaxation.





Student Life/ Student Body

Life in a collegiate environment is a highly individualized experience. Long-lasting friendships are formed and personal relationships develop which, for some, will lead to the commitment of marriage.

What are students like at SIU? They are representative of students from both the northern and southern halves of Illinois. They are from the large cities and from the farm communities. Most are from Illinois, but all 50 states and 73 foreign countries are also represented. There is no "typical" student, but rather a diversity of individuals from a wide array of backgrounds and with varying life styles and goals. You will find some friends here who are very much like you and others whose differences will broaden your perspective and awareness of people.

New students include many who have just completed high school or who are transferring from community colleges and others who have been out of school for a while.

What can you do in addition to attending classes and studying? That's up to you. You may join some of the 241

recognized student organizations or participate in any of the 3,000 sponsored student activities. An extensive intramural program offers men's, women's, and co-ed activities of organized recreation. The facilities of campus lake, the arena, the new recreation building, as well as tennis courts and playing fields are all available to you. Also, you will find out why Southern Illinois is famous for its parks, lakes and forests when you go picnicking, boating and hiking at Giant City, Crab Orchard Lake, Shawnee Forest . . .

The Student Center is the hub of student activities. Inside the eight acres of space there are cafeterias, snack bars, recreation rooms, a 16-lane bowling alley, television room, informal lounges, ball-rooms, bookstore, and an automated post office.

Top name entertainers are brought to campus for performances in the 10,000 seat SIU Arena. This multi-purpose facility is used year-round for athletic events, stage shows, and special programs.

As is appropriate at an institution of learning, cultural events are scheduled for your enjoyment and perhaps for broadening your interests. Such events include theater, drama, comedy, musicals, opera, concerts, dance, and informative lecturers. Many of these are provided through University Convocations with no admission charge.

There are more things to do than you will find time for. You'll find student life alive and well at SIU!

Southern Illinois

Defining the geographical boundaries of this versatile and unique region is difficult, for the term Southern Illinois implies different things to different people. Chicagoans generally refer to all of Illinois outside Cook County as down-state, whereas many persons living as far as 200 miles south of Chicago don't think of themselves as Southern Illinoisans. Some would define Southern Illinois as the lower 14 or 16 counties; others would include the lower 31. It's a section commonly referred to as Little Egypt, dotted with places named Cairo, Karnak, Goshen, and Thebes, and serviced by motels, restaurants, and other business establishments using Egyptian motifs.

There are other influences that make Southern Illinois a region apart in the geography and geology of the area. Most of the state is flat, with rich soils. Much of the southern section, though, is covered by rolling hills and stone-cropped valleys. Coal, oil, flourspar, and other mineral deposits, found so abundantly in the south as to support the economy of entire counties, taper off sharply or become nonexistent north of U.S. Route 40. The climate is considerably milder toward the south and the growing season is longer; cotton is grown in the Cairo area, and peaches, apples, and strawberries are grown extensively almost to the northern limits of the area.

Unparalleled scenic vistas, large lakes and rivers, a pleasant climate, and abundant wildlife make the region a vacation attraction that is still relatively unspoiled. The area offers outdoor and water sports, scenery, historic sites, horse racing, hiking along Indian trails, exploring pirate caves, and family camping. Its river-bank and hill-country drives offer motorists breath-taking views, accented over the seasons by spring blossoms, galleries of summer greens and rich autumn hues. Visitors from upstate Illinois and neighboring states drive hundreds of miles, in April for example, to see acres and acres of peach and apple blossoms.

Just east of Carbondale lies 7,000 acre Crab Orchard Lake, part of the National Wildlife Refuge. Wildlife by the thousands and over 100 species of birds make the refuge their home. It's a major winter stopover for migrating Canada geese. Other federal lands offer outdoor pleasure

for the sightseer and outdoorsman. The Shawnee National Forest, covering 240,000 acres in eight counties, abounds with wildlife, camping sites, and sheltered picnic spots. At Pine Hills along the Mississippi River, the U.S. Forest Service preserves 10,000 acres of virgin land and primal swamp.

Eleven state parks, within easy driving distance of each other, cover more than 6,000 acres. Within the largest of these, Giant City State Park, loom some of the nation's most amazing rock formations. Huge blocks of stone, their walls as vertical as skyscrapers, face each other across narrow canyons no wider than a city street. Another park showcase is a beautiful stone lodge flanked by rustic overnight cabins. Like all of the state parks, it has playground and picnic facilities.

As one native expressed it, Southern Illinois offers fresh, unpolluted air, plenty of elbow room, and genuine southern hospitality.



Admission of Freshmen

ACT/APP

Beginning freshmen can expedite and simplify their admission by indicating at the time they write the American College Test that their test scores should be sent to Southern Illinois University at Carbondale (College Code 1144). Students who take the ACT during one of the five national test dates and send their scores to the University do not have to apply for admission. Upon receipt of test scores, students will be contacted automatically by the University. Those who achieve standard composite ACT scores of 19 or higher will be tentatively admitted and will receive a notice of tentative admission. In order to be officially admitted, they must return the notice of tentative admission, which is used in lieu of application for admission, and a copy of their high school transcript.

Admission Requirements

Applicants seeking admission to a baccalaureate program who have an ACT composite score of 19 or higher (SAT 800) are eligible for admission any semester. In addition, high school graduates who rank in the upper half of their graduating classes and who score a minimum ACT composite of 16 or higher (SAT 720) are also eligible for admission any semester.

High school graduates who rank in the upper two-thirds of their graduating class or who earn a minimum ACT composite score of 16 or higher (SAT 720) are admissible for the spring semester on a conditional basis. The conditions are that the student must enroll for a minimum of 12 semester hours and complete at least 10 semester hours of graded work with a minimum overall C average.

Students who have been admitted or who qualify to be admitted on a conditional basis may earn transfer credit at another college or university prior to their spring semester at SIU. However, to

maintain their eligibility for spring enrollment, students must earn an overall C average in all work attempted.

A limited number of applicants who do not meet the University's entrance requirements may be granted admission to the fall semester through two special admissions programs; Basic Skills and Special Supportive Services. All applicants who are not admissible by the above requirements will have their applications reviewed automatically for admission to one of these special programs.

Students seeking admission into the associate degree programs in the School of Technical Careers can qualify for admission any semester if they rank in the upper two-thirds of their graduating class or score a minimum ACT composite score of 16 or higher (SAT 720). Students who do not qualify for admission to the associate degree program under the above requirements may be granted conditional admission for the spring semester.

Students seeking admission to dental hygiene, dental laboratory technology, mortuary science and funeral service, nursing, or physical therapist assistant programs must meet university entrance requirements as well as those of the specific programs. All students applying for admission to one of these programs will be sent additional information on admissions from the department chairman.

Students interested in dental hygiene are required to take the Dental Hygiene Aptitude Test. This examination must be taken in November.

While SAT scores will be utilized in processing an applicant's admission, all high school applicants must submit scores from the ACT (American College Testing) Service.

Procedures

Beginning freshmen who do not send their ACT scores to the University or who have scored less than a composite of 16 should write to the Admissions Office and request an application for admission. The application should be completed and given to the student's counselor in order that it can be sent to the Admissions Office along with a copy of the student's transcript. If the application for admission and transcript are submitted together, it will expedite the student's admission. Students are also required to submit their ACT scores to the Admissions Office. Once these three records are received, students will be informed of their possible acceptance to the University.

Admission of Transfer Students

Admission Requirements

Transfer students with an overall *C* average as determined by SIU grading procedures in all college work and at least 26 semester (39 quarter) hours are eligible for admission any term. Transfer students who have at least a *C* overall average but fewer than 26 semester (39 quarter) hours must also be eligible as beginning freshmen.

Transfer students with an associate degree in a baccalaureate-oriented program from a regionally accredited two-year institution may enter regardless of grade point average provided additional work has not been taken since graduation. If additional work has been completed, admission is based on the above requirements.

Transfer students who obtain baccalaureate-oriented associate degrees from regionally accredited institutions will also be admitted as satisfying all

general education requirements and be granted automatic junior standing.

Student with less than a *C* average may be considered for admission on scholastic probation provided there has been an interruption of schooling for at least one semester, summers excluded and provided tangible evidence can be submitted that additional education can be successfully completed.

Students who have been suspended for poor scholarship from the last institution attended may be considered for admission provided there has been an interruption of schooling for at least one year, and there is tangible evidence that additional education can be successfully completed.

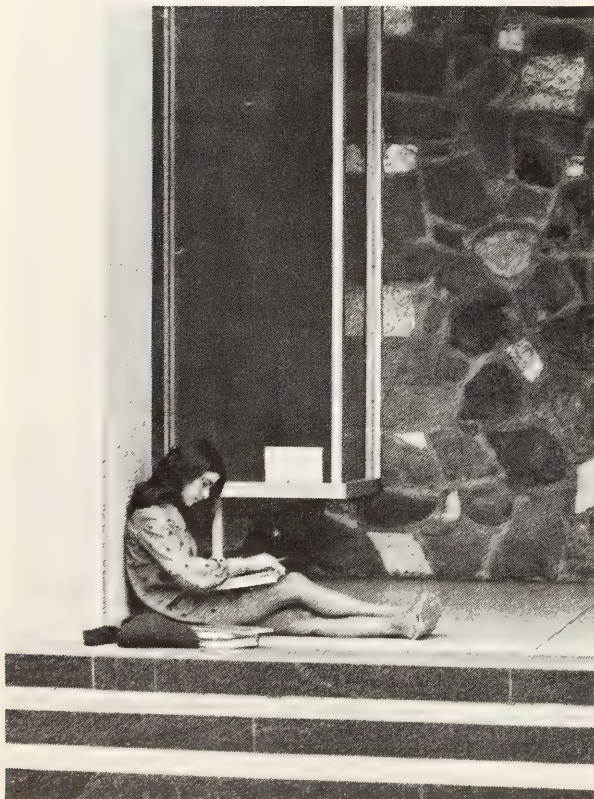
Veterans

Veterans are admitted regardless of their previous academic record provided no additional education has been attempted since separation from active duty (credit attempted must amount to *C* average or higher). Previous educational records will determine the scholastic status of entering veterans.

Evaluation of Credit

After transfer students have been admitted, their transfer work is evaluated in the Records Division of the Office of Admissions and Records. This evaluation covers general degree and General Studies (general education) requirements. Copies of the evaluations are mailed directly to the student and their academic departments. Transferred courses which are not evaluated as General Studies are evaluated by the department directing the specific curriculum.

The Associate in Applied Science degree holder (one having a two-year technical-occupational degree) has available a range of program options and policies concerning the acceptance of technical credit that can be matched by few institutions in the country today. Through the University's Project Capstone, qualified technical graduates with the Associate in Applied Science degree from a regionally accredited two year institution may enter selected baccalaureate programs in the School of Agriculture, College of Education, College of Human Resources, School of Engineering and Technology, or individually designed programs in the School of Technical Careers, and be guaranteed by contract graduation in two years (60 hours) of additional course work.



For Your Information

Housing Requirements

All freshmen and sophomores under the age of 21 who do not live with parents or guardians must live in University-owned and operated housing or off-campus University-approved housing. Juniors, seniors, graduates, married students, veterans, or those students over 21 years of age may live where they choose.

Anyone who is admitted to SIU receives additional information from the Housing Office.

Expenses

Tuition and fees for a Illinois resident total \$371.25 per semester or \$742.50 per academic year. This is for a student taking 12 or more hours during a semester.

The out-of-state resident is assessed \$895.25 per semester (\$1,790.50 per academic year) for taking 12 or more hours. Out-of-state students should be aware that they may become eligible to pay in-state tuition and fees after establishing three months residency in Illinois.

Board and room in University residence halls is now \$760 per semester or \$1,520 per academic year. Housing facilities (on campus) for married students include furnished efficiency apartments renting for \$124 per month; furnished (one bedroom), \$140; furnished (two bedrooms), \$151; unfurnished (two bedrooms), \$140-\$146; and unfurnished (three bedrooms), \$155.

To figure what it will cost you to attend SIU for one academic year, estimate personal spending and living costs and add housing and tuition and fees.

Student Work and Financial Assistance

We explained this earlier, but a couple more notes:

SIU requires applicants to file the ACT/FFS Family Financial Statement in order to determine eligibility for all financial assistance.

Additional information from the University's Student Work and Financial

Assistance Office is sent routinely to all applicants for admission to SIU at Carbondale.

Assistance Available

Southern Illinois University at Carbondale welcomes you to its beautiful campus. The University is always ready to serve you; the fundamental concern is you and your search for knowledge. We hope you will discover for yourself that Southern Illinois University at Carbondale is what we've described, and more.

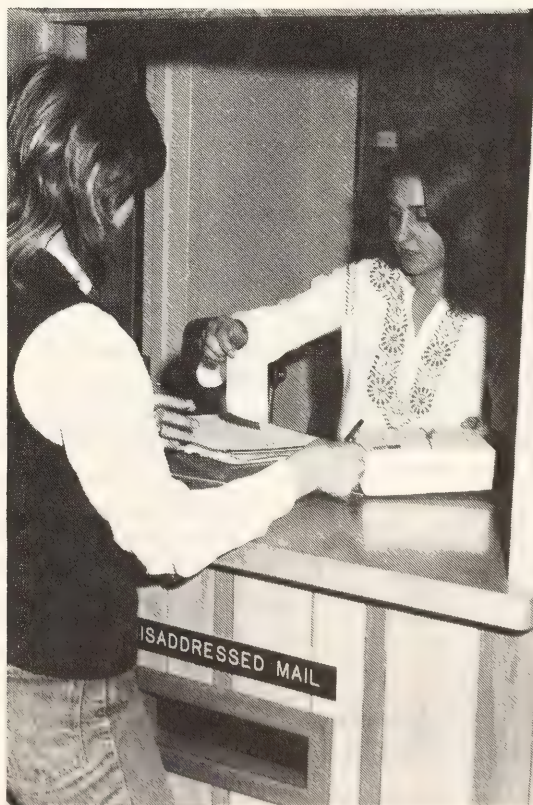
Have questions? Want to visit the campus? Need more information? The return postcards in this publication are designed specifically to help you learn more about Southern Illinois University at Carbondale. The School/College Relations Division staff members are available to make your transition to SIU a smooth one. If you need them, they're in the Office of Admissions and Records in Woody Hall. Correspondence, telephone calls, and visitors are welcome. For assistance:

Office of Admissions and Records
Southern Illinois University at
Carbondale

Carbondale, Illinois 62901

Telephone (618) 453-4381

Toll free (Illinois residents only) to the
Office of Admissions and Records, dial
800-642-3531.



Curriculum- Majors

Academic units are in bold print (e.g. Agriculture). Undergraduate majors and minors are listed under each academic unit. Specializations within a major are indented. The asterisk indicates a minor only. All students who have not yet chosen a major will be advised in the Pre-Major Advisement Center in General Academic Programs.

Agriculture

Agricultural Education
Agricultural Industries
Agricultural Economics
Agricultural
Mechanization
Agriculture, General
Country Living
Environmental Studies
Animal Industries
Production
Science & Pre-Veterinary Medicine
Forestry
Forest Resources
Management
Forestry Environmental
Assessment
Outdoor Recreation
Resource Management
Forest Science
Plant & Soil Science
Urban Horticulture
Environmental Studies
General
Business
Science

Business and Administration

Accounting
Administrative Sciences
Management Systems
Organizational Behavior
Personnel Management
Production-Operations
Management
Business Economics
Finance
Financial Institutions
Financial Management
Marketing

Communications and Fine Arts

Art
Drawing
Painting
Printmaking
Sculpture
Ceramics/Metal-smithing/Fibers/
Weaving
Art Education
Art History
General Studio
Cinema and Photography
Film Production
Film History/Theory/
Criticism
Fine Arts Photography

Professional
Photography
Cinema and
Photography
Photojournalism
Journalism
Advertising
News-Editorial
Photojournalism
Music
Performance
Instrumental
Keyboard
Voice
Music History-
Literature
Music Theory and
Composition
Music Education
Radio and Television
Speech Communication
Communication Arts
and Studies
Speech Education
Oral Interpretation
Public Relations
Speech Pathology and
Audiology
Clinical
Public School
Theater
Acting-Directing
Design-Production
Playwriting-Dramatic
Literature
Dance

Education

Agricultural Education
Art
Biological Sciences
Botany
Business Teacher
Education
Chemistry
Early Childhood Educ.
K-3 Teaching Emphasis
Preschool Teaching
Emphasis
Earth Sciences*
Economics
Elementary Education
English
Foreign Languages
General Science
Geography
Health Education
History
Home Economics
Education
Instructional Materials*
Journalism
Language Arts and Social
Studies
Latin (Classical Studies)*
Mathematics
Music Education
Occupational Education
Industrial Arts
Secondary Teaching
Physical Education for
Men
Physical Education for
Women
Physics
Political Science
Recreation
Park and Community
Recreation

Recreation/Special
Populations
Outdoor Recreation
Commercial Recreation
Management
Program Specialist
Social Studies
Special Education
Behavioral Disorders
Learning Disabilities
Mental Retardation
Speech
Speech Pathology and
Audiology
Zoology

Engineering and Technology

Engineering
Engineering Mechanics
and Materials
Electrical Sciences and
Systems Engineering
Thermal and
Environmental
Engineering
Engineering Technology
Civil
Electrical
Mechanical
Industrial Technology
Occupational
Alternative
Mining Technology

General Academic Programs

Undecided Major
University Studies

Pre-Professional Program

Nursing

Human Resources
Administration of Justice
Black American Studies*
Child and Family
Pre-School Programs
Preschool Early
Childhood
Certification
Clothing and Textiles
Apparel Design
Retailing
Community Development*
Design
Computer Aided
Design
Product Design
Urban Planning
Visual Communications
Family Economics & Mgt.
Consumer Services in
Business
Family Services
Consultant
Food and Nutrition
Dietetics
Foods in Business
Food and Lodging
Systems Management
Food and Nutrition
Science
Interior Design
Social Welfare

Liberal Arts

African Studies*
Anthropology
Asian Studies*
Chinese*
Classical Studies
Comparative Literature
Computer Science
Business/Management
Information
Processing
General
Earth Science
East Asian Civilizations*
Economics
English

French
Geography
General
Environmental Studies
and Planning
German
Greek*
History
Japanese*
Latin*
Latin-American Studies
Linguistics
Mathematics
Music
Philosophy
Political Science
Psychology
Religious Studies
Russian
Sociology
Spanish
Speech
Theater
Uncommon Languages*

Pre-Professional Programs

Law
Theology

Science
Biological Sciences
Botany
Chemistry
Earth Science*
Engineering Biophysics
Geology
Microbiology
Physics
Physiology
Zoology

Pre-Professional Programs**

Dentistry
Medical Technology
Medicine
Pharmacy
Physical Therapy
Veterinary Science

Technical Careers (formerly VTI)

Associate Degree
Programs
Allied Health Careers
Specialties
Architectural Technology
Automotive Technology
Aviation Technology
Avionics Technology
Commercial Graphics
Design
Production
Construction Technology
Building
Civil
Correctional Services
Dental Hygiene
Dental Lab. Technology
Electronic Data
Processing
Electronics Technology
Law Enforcement
Mortuary Science and
Funeral Service
Nursing
Photographic and Audio-
Visual Technology
Physical Therapist
Assistant
Secretarial and Office
Specialties
Tool and Manufacturing
Technology
(Numerical Control)

Baccalaureate Degree Program

Technical Careers

*Minor only
**Non-Degree Programs

Campus Visit Request

I plan to visit your campus on

date(s)

time—date of arrival

I would like appointments with:

- ☐ Admissions Counselor
☐ Housing Representative
☐ Financial Assistance
☐ Campus Tour-Guide
☐ Academic Department(s)

**I would like information on lodging
while in Carbondale for**

date(s)

☐ MR. ☐ MISS ☐ MRS. NAME

ADDRESS

CITY

STATE

ZIP

TELEPHONE NUMBER

Information Request

(Please Print)

Please Send

- ☐ Application for Admission
- ☐ Information on my intended major which is

☐ MR. ☐ MISS ☐ MRS. NAME

ADDRESS

CITY

STATE

ZIP

☐ Other

First Class
Permit No. 81
Carbondale, Illinois

Business Reply Mail

No Postage Necessary if Mailed in the United States

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Office of Admissions and Records
Southern Illinois University
at Carbondale
Carbondale, Illinois 62901

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University Calendar

FALL 1977	Semester Classes Begin	8:00 A.M., Monday, August 22
	Labor Day Holiday	Monday, September 5
	Thanksgiving Holiday	Saturday, November 19, 12:00 NOON—Monday, November 28, 8:00 A.M.
	Final Examinations	Saturday, December 10— Saturday, December 17
SPRING 1978	Semester Classes Begin	8:00 A.M., Monday, January 16
	Washington's Birthday Holiday	Monday, February 20
	Spring Vacation	Saturday, March 18, 12:00 NOON—Monday, March 27, 8:00 A.M.
	Final Examinations	Saturday, May 6—Friday, May 12
	Commencement	Saturday, May 13
SUMMER 1978	Eight-Week Session Begins	Monday, June 12, 7:30 A.M.
	Independence Day Holiday	Tuesday, July 4
	Final Examinations	Thursday and Friday, August 3-4
	Commencement	Saturday, August 5
FALL 1978*	Semester Classes Begin	8:00 A.M., Monday, August 21
	Labor Day Holiday	Monday, September 4
	Thanksgiving Holiday	Saturday, November 18, 12:00 NOON—Monday, November 27, 8:00 A.M.
	Final Examinations	Monday-Saturday, December 11-16

*tentative



Southern Illinois University Bulletin

1978-1979 Counselor's Advisement Catalog

Southern Illinois University
at Carbondale



Southern Illinois University at Carbondale is in compliance with Title IX of the Education Amendments of 1972. In part, Title IX mandates that no person shall, on the basis of sex, be excluded from participation, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. Inquiries concerning the application of Title IX regulations may be directed to Dr. Mary Helen Gasser or Mr. Richard Hayes, University Affirmative Action Office, Anthony Hall, Room 104, telephone 536-6618.



**Southern
Illinois
University
Bulletin**

**1978-1979
Counselor's Advisement
Catalog**

**Southern Illinois University
at Carbondale**

Southern Illinois University Bulletin

Volume 19, Number 4, July 1977

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monthly except March, April, May,
and December.**

OFFICE OF ADMISSIONS AND RECORDS
SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE
CARBONDALE, ILLINOIS 62901

Dear Counselor:

This advisement catalog provides the high school and community college counselor with specific information for advising and counseling students interested in Southern Illinois University at Carbondale.

May we offer you a few suggestions in its effective use.

The catalog is arranged in three major areas: General Information, Academic Information, and Instructional Units. The first and last sections should be of interest to both secondary and college counselors. (Note the table of contents.) The second section relates specifically to community college activities.

1. After determining information needed, refer to the index (or, as a second choice, the table of contents). Most items have been cross-indexed under several topics.
 - a. If you are seeking information about the two year associate degree technical programs or the bachelor degree program in Technical Careers, please refer to the end of the section indicated as Instructional Units. In here you will find these programs listed in alpha order. (Page 190)
 - b. Information concerning all the university's four year degree programs is listed in alphabetical order starting at the beginning of the section indicated as Instructional Units. (Page 49)
 - c. In advising students in community colleges, counselors must keep in mind that the recommended programs are those followed by our native students. Transfer students may not need all of the courses listed, or they may not be able to take the exact same courses. Hence, attention must be given to specific program and academic unit requirements and the means by which the General Studies requirements may be satisfied.

We would like all counselors to note three specific items for the coming year. One involves our ACT/APP admission procedure noted on Page 11 of this text. This should be of particular interest to high school counselors. The second item relates to the admission of students to the two year Allied Health Programs in the School of Technical Careers. Effective with the Fall 1976 Semester, admission to the programs of Dental Laboratory Technology, Dental Hygiene Assistant, Nursing, Mortuary Science, and Physical Therapy Assistant require additional application materials. Admission to these programs is on a selective basis similar to that used for Dental Hygiene in the past. The third item, Entry-Level Job Titles, has been included this year in the hope it will assist you in answering the old question, "What do I do with a major in _____?" These titles reflect those obtained by recent graduates. We listed no titles for College of Education majors as these should be familiar to the user. The information is provided on Page 213 of this text.

For additional copies of the catalog please feel free to contact School/College Relations, Office of Admissions and Records, Southern Illinois University, Carbondale, Illinois 62901. We would like all individuals involved in advising and counseling to have their own personal copy. Should you or members of your staff have questions concerning use or information contained within the catalog please feel free to contact me personally anytime. You can count on my utmost cooperation.

M. George Mandis, Editor, Counselor's Advisement Catalog
Counselor, School/College Relations Division

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UNIVERSITY CALENDAR

Fall Semester 1977

Semester Classes Begin
Labor Day Holiday
Thanksgiving Holiday
Final Examinations

Monday, August 22, 8:00 a.m.
Monday, September 5
Saturday, November 19, 12 noon--
Monday, November 28, 8:00 a.m.
Saturday, December 10--Saturday,
December 17

Spring Semester 1978

Semester Classes Begin
Washington's Birthday Holiday
Spring Vacation
Final Examinations
Commencement

Monday, January 16, 8:00 a.m.
Monday, February 20
Saturday, March 18, 12 noon--
Monday, March 27, 8:00 a.m.
Saturday, May 6--Friday, May 12
Saturday, May 13

Summer Session 1978

Eight-Week Session Begins
Independence Day Holiday
Final Examinations
Commencement

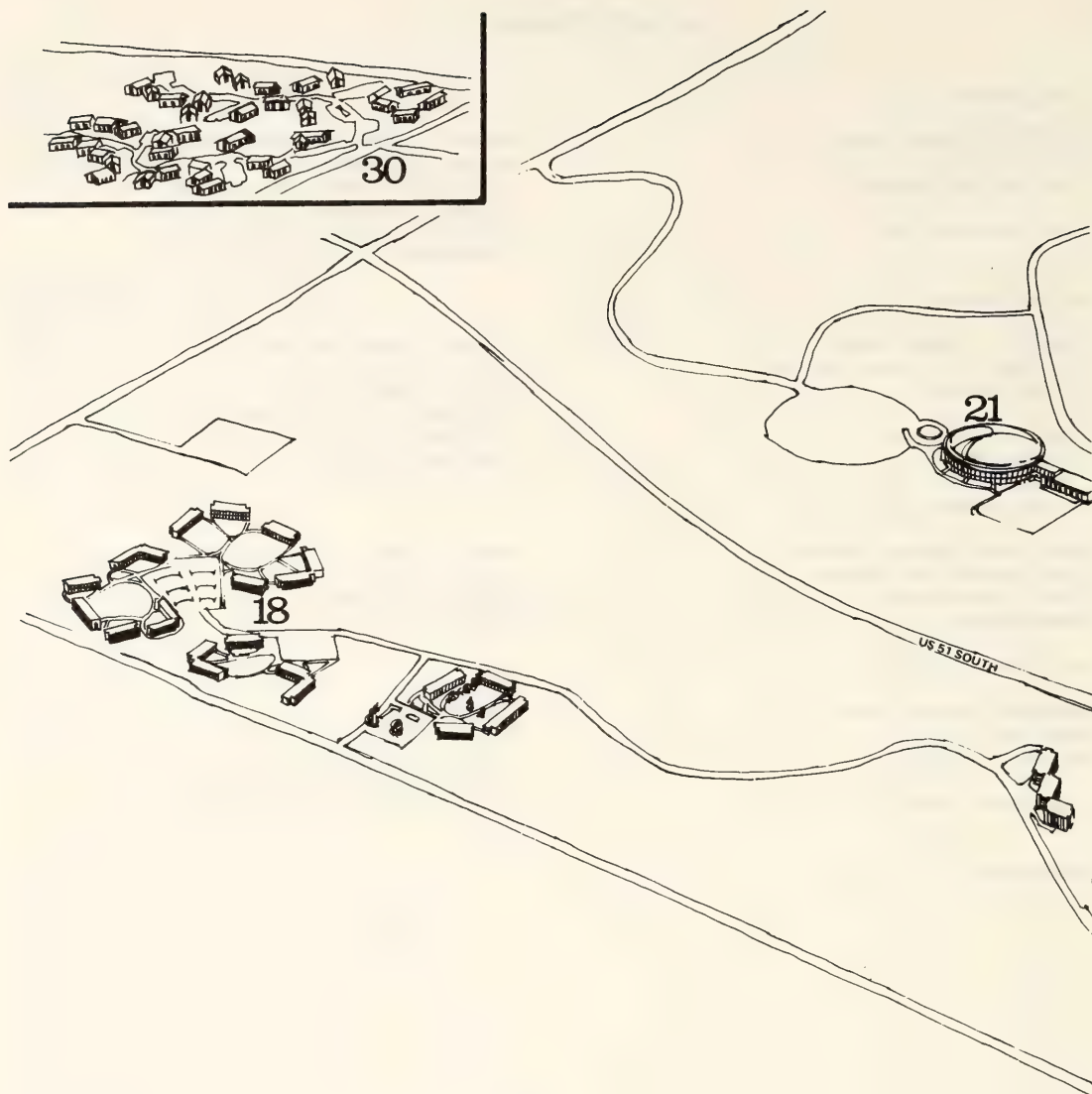
Monday, June 12, 8:00 a.m.
Tuesday, July 4
Thursday--Friday, August 3-4
Saturday, August 5

Fall Semester 1978*

Semester Classes Begin
Labor Day Holiday
Thanksgiving Holiday
Final Examinations

Monday, August 21, 8:00 a.m.
Monday, September 4
Saturday, November 18, 12 noon--
Monday, November 27, 8:00 a.m.
Monday--Saturday, December 11-16

*tentative



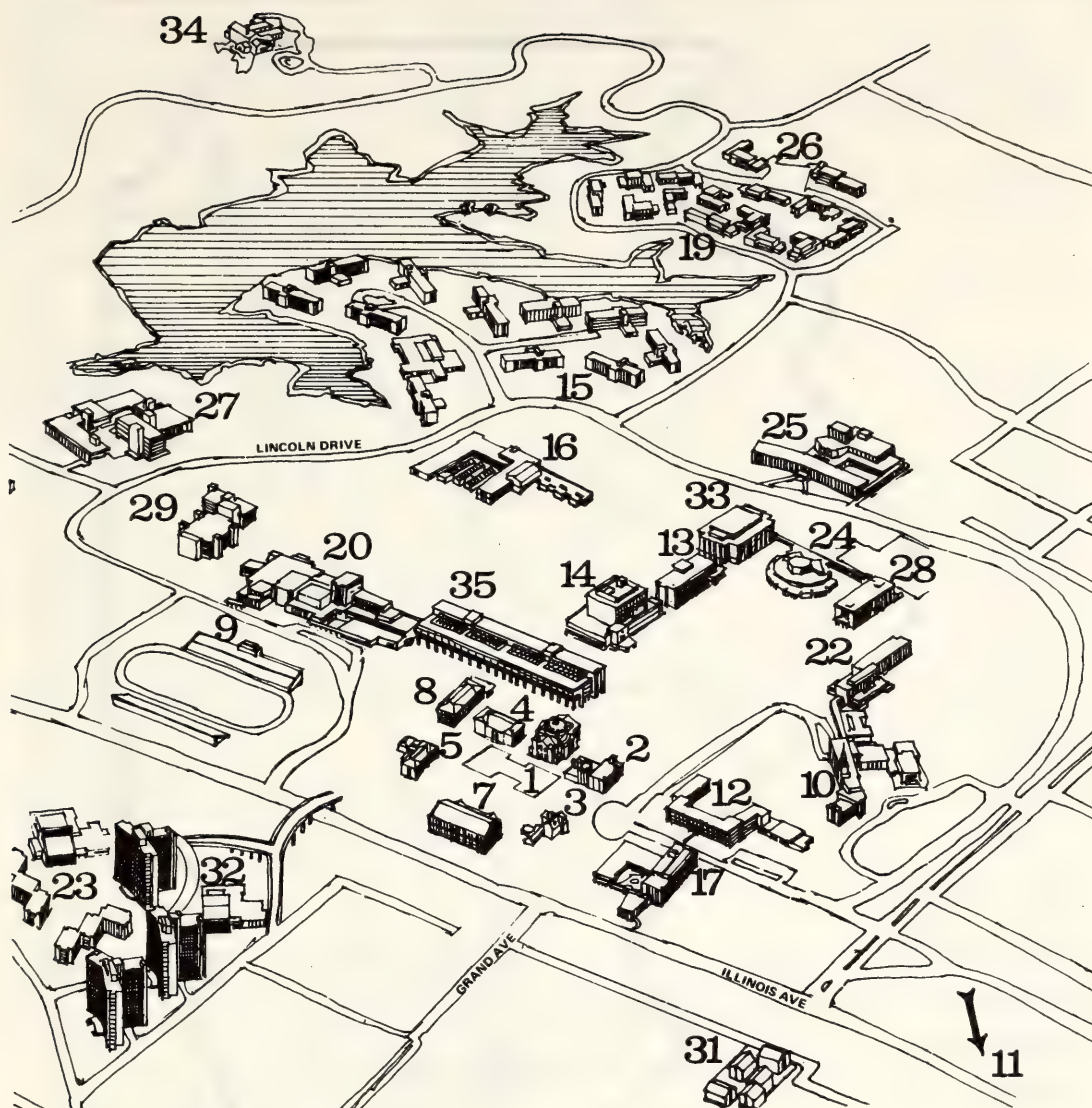
Legend

Old Campus

1. Old Main Site
2. Altgeld Hall (1896)
3. Wheeler Hall (1904)
4. Allyn Building (1908)
5. Anthony Hall (1913)
6. Shryock Auditorium (1918)
7. Davies Gymnasium (1925)
8. Parkinson Laboratory (1928)
9. McAndrew Stadium (1938)

New Campus

10. Pulliam Hall (1951)
11. School of Technical Careers (1951)
12. Woody Hall (1953)
13. Life Science I (1953)
14. Morris Library (1956)
15. Thompson Point Residence Halls (1957)
16. Agriculture Building (1957)
17. Home Economics Building (1959)
18. Southern Hills Family Housing (1960)
19. Small Group Housing (1960)
20. Student Center (1961)
21. SIU Arena (1964)
22. Wham Education Building (1964)
23. University Park Residence Halls (1965)
24. Lawson Hall (1965)
25. Communications Building (1966)
26. Health Service (1966)
27. Technology Buildings (1966)
28. General Classroom Building (1967)
29. James W. Neckers Building (1968)
30. Evergreen Terrace Family Housing (1968)
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33. Life Science II (1971)
34. President's Home (1971)
35. Faner Building (1973)

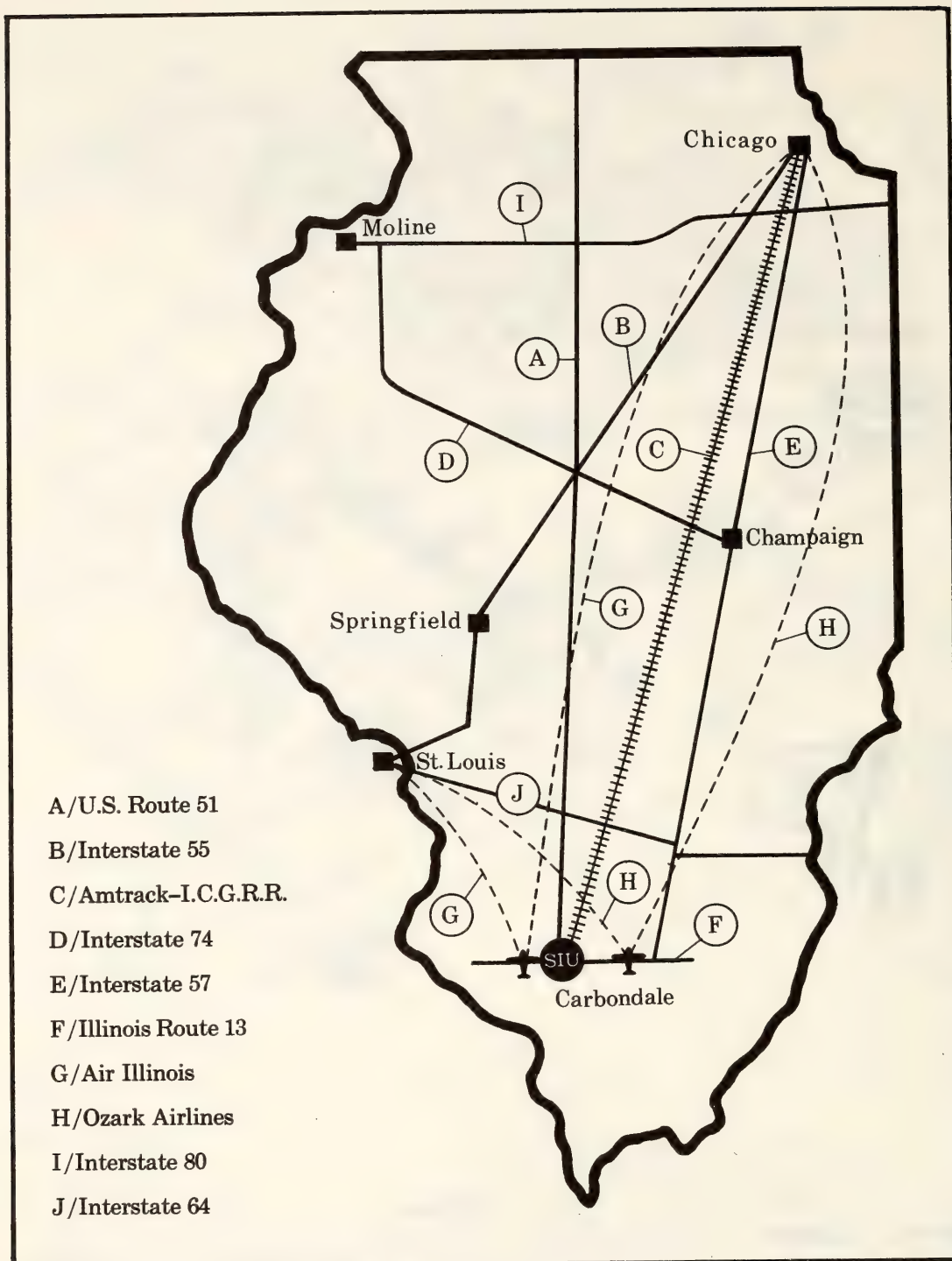


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Offices

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 President's Offices
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 Bursar's Office (Fee Payment)
 Cafeteria
 Counseling Center
 General Academic Programs
 Graduate Studies and Research
 Student Affairs Research and
 Evaluation Center
 Student Services
 Student Work and Financial Assistance
 Student Center 20
 Book Store
 Cafeteria
 Information Desk
 Washington Square 31
 Housing Business Services
 Parking Division



CAMPUS

The original eight-building campus with its Gothic architectural tradition is now completely surrounded by a sprawling modern 866-acre campus with a maze of paths, impressive buildings, and attractive residence halls. Even though the original campus still serves as a focal point of study and university tradition, the prevailing design of the 430-building campus now is contemporary. Facilities vary in style, size, and purpose from a circular 10,000-seat arena, to an eight-sided multimedia instruction center, 17-story high-rise residence halls, and a permanent beach house on the 40-acre spring-fed campus lake.

Being teaching and research oriented, the University provides a balance of laboratories and classrooms which serve as satellites to the impressive 7-story Morris Library containing over 1-1/2 million volumes and subscribing to over 11,000 current periodicals.

Additional facilities include the School of Technical Careers some ten miles east, the Southern Illinois Airport three miles west, laboratories at Little Grassy Lake, and University Farms.

UNIVERSITY DIRECTORY

Listed below are the various offices, schools and colleges which are available to aid counselors, prospective students, and parents in answering questions which may not be within the scope of the various university publications. Please feel free to direct inquiries to the appropriate areas.

The general university telephone number is 618-453-2121. The mailing address is Southern Illinois University, Carbondale, Illinois 62901.

OFFICES

SIU (UNIVERSITY SWITCHBOARD). (618) 453-2121

Admissions and Records (applications, registration) (Illinois residents call toll free 800-642-3531)	453-4381
Airport, Southern Illinois.	536-6661
Athletics, Intercollegiate.	453-5311
Athletics, Tickets.	453-5319
Bursar (payment of fees).	453-2221
Central Ticket Office	536-3351
Counseling Center	453-5371
Health Service.	453-3311
School/College Relations.	453-4381
Housing Business Services (on-campus housing)	453-2301
Housing Information Services (off-campus housing)	453-2301
International Education	453-5774
Parking Section	453-5369
President's Scholar Program	453-4351
Specialized Student Services (Handicapped).	453-5738
Student Activities.	453-5714
Student Life.	536-2338
Student Services.	453-2374
Student Work and Financial Assistance	453-4334
Testing Center (CLEP, Placement/Proficiency, ACT Residual).	536-3303
University Graphics and Publications.	536-3325
University Ombudsperson	453-2411

SCHOOLS AND COLLEGES

Agriculture, School of (Agriculture Building)	453-2460
Business and Administration, College of (General Classroom Building).	453-3328
Center for the Study of Crime, Delinquency, and Corrections	453-5701
Communications and Fine Arts, College of (Communications Building).	453-4308
Education, College of (Wham Education Building)	453-2415
Engineering and Technology, School of (Technology Building)	453-4321
General Academic Programs (Woody Hall).	453-4351
Graduate Studies and Research (Woody Hall).	536-7791
Human Resources, College of	453-2251
Law, School of.	536-7711
Liberal Arts, College of (General Classroom Building)	453-2466
Medicine, School of	536-5511
School of Technical Careers	536-3301
Science, College of (Neckers Building).	536-6666

GENERAL INFORMATION

University Campus
Undergraduate Curriculum
Admission Procedures
Admission Policies
University Housing
Registration and Advisement
Costs
Financial Assistance
Student Services
Motor Vehicle Regulations

GENERAL INFORMATION

ENVIRONMENT

Community: Carbondale, Illinois (pop. 26,000)
Location in State: Southern Illinois (Jackson County)
Miles from: St. Louis, 110; Chicago, 330; New York, 960; San Francisco, 2,140.
Terrain: Slightly rolling (elevation 400-500 feet).
Climate: Pleasant and mild year-round temperature, mean annual temperature 57.8 degrees.
Area: Historical "Little Egypt," year-round outdoor recreation, four scenic large lakes, national forest and game refuge.
Transportation: Major train, plane, and bus routes, Amtrak Rail System, Ozark, Air Illinois, etc., airlines, Gulf Transport bus line, highway routes Interstate 57, US 51, Illinois 13.

UNIVERSITY

Name: Southern Illinois University at Carbondale
Founded: 1869
President: Warren Brandt
Campus Location: Southwest corner of the community
University telephone number: 618-453-2121
Type: Public state university of the Southern Illinois University System
Student Body: Co-ed
Curriculum: Undergraduate, graduate, and professional
Calendar: Early semester (Fall and Spring), Summer session
Accreditation:
North Central Association of Colleges and Secondary Schools
National Council for Accreditation of Teacher Education
Membership in 530 professional organizations
Campuses: Carbondale, School of Technical Careers, Southern Illinois Airport, outdoor laboratories, university farms
Acreage: 7,887
Campus Buildings: 430
Colors: Maroon and white
Mascot: Saluki (Egyptian hunting dog)

STUDENT BODY

Enrollment, Fall 1976: 22,117
Undergraduate, 18,345; graduate, 3346; Professional 426
Men, 13,940; women, 8177
Residency: Illinois 19,677 (91%); 48 other states, 1,969; 72 other countries, 4
Commuting: 7%

PERSONNEL, 1976

Percentage full-time faculty with doctorate: 65%
Students/full-time faculty ratio: 18:1

DEGREES

Undergraduate: (Associate); A.A., A.D.N., A. Tech., A. Bus. (Bachelor); B.A., B.S., B. Mus. Ed., B. Mus.
Graduate: M.A., M.B.A., M.F.A., M. Mus., M. Mus. Ed., M.S. Ed.; Specialist Degree (6 yr.); Ph.D., M.D., J.D.

UNDERGRADUATE CURRICULA AND COURSES

The undergraduate fields of study offered by Southern Illinois University at Carbondale follow in alphabetical order rather than by college or school. Unless otherwise noted, the curriculum in each field listed below leads to a bachelor's degree. Associate degree curricula are marked with an asterisk. Specializations within fields of study are included in listings of recommended two year programs.

Accounting	French ³
Administration of Justice	General Science
Administrative Sciences	Geography
African Studies ¹	Geology
Agricultural Education	German ³
Agricultural Industries	Greek ^{1,3}
Agriculture, General	Health Education
Allied Health Career Specialties*	History
Animal Industries	Home Economics Education
Anthropology	Industrial Technology
Architectural Technology*	Instructional Materials ¹
Art	Interior Design
Asian Studies ^{1,6}	Japanese ^{1,3}
Automotive Technology*	Journalism
Aviation Technology*	Language Arts and Social Studies
Avionics Technology*	Latin ^{1,3}
Biological Sciences	Latin American Studies
Black American Studies ^{1,6}	Law Enforcement*
Botany	Linguistics
Business Economics	Marketing
Business Teacher Education	Mathematics
Chemistry	Microbiology
Child and Family	Mortuary Science and Funeral Services*
Chinese ^{1,3}	Music
Cinema and Photography	Nursing*
Classical Studies ³	Occupational Education
Clothing and Textiles	Philosophy
Commercial Graphics - Design*	Photographic and Audio-Visual Technology*
Commercial Graphics - Production*	Physical Education for Men
Community Development ¹	Physical Education for Women
Comparative Literature ^{1,6}	Physical Therapist Assistant*
Computer Science	Physics
Construction Technology - Building*	Physiology
Construction Technology - Civil*	Plant and Soil Science
Consumer Studies ^{1,4}	Political Science
Correctional Services*	Psychology
Dance ^{1,5}	Radio - Television
Dental Hygiene*	Recreation
Dental Laboratory Technology*	Religious Studies
Design	Russian ³
Early Childhood Education	Secretarial and Office Specialties*
Earth Science ¹	Social Studies
East Asian Civilizations ^{1,3}	Social Welfare
Economics	Sociology
Electronic Data Processing*	Spanish ³
Electronics Technology*	Special Major
Elementary Education	Special Education
Engineering	Speech
Engineering Biophysics	Speech Pathology and Audiology ²
Engineering Technology	Technical Careers
English	Theater
Family Economics and Management	Tool and Manufacturing Technology
Finance	(Numerical Control)*
Food and Nutrition	Uncommon Languages ^{1,2}
Forestry	University Studies
	Zoology

Preprofessional Programs⁷

Dentistry	Optometry
Law	Pharmacy
Medical Technology	Physical Therapy
Medicine	Podiatry
Nursing	Theology
Osteopathy	Veterinary Science

¹Minor only.

²Described under Linguistics.

³Described under Foreign Languages and Literatures.

⁴Described under Family Economics and Management.

⁵Described under Physical Education for Women.

⁶A special major may be developed in this field of study.

⁷Preparatory to applying to professional schools. These are non-degree programs.

*Associate degree curriculum.

APPLICATION REQUEST: ADMISSION PROCEDURES

To request application materials for admission, write to the:
Office of Admissions and Records
Southern Illinois University
Carbondale, Illinois 62901

or call toll free (Illinois residents) 800-642-3531. Direct call (618) 453-4381.

Counselors may request application packets in small quantities. Rolling admissions process:
NO DEADLINE. APPLICATION FEE: NONE.

ACT/APP

Beginning freshmen can simplify their admission to SIU by indicating at the time they write the American College Test (ACT) that their test scores should be sent to Southern Illinois University at Carbondale (college code 1144). Students who take the ACT during one of five national test dates and send their scores to us do not have to apply for admission. Once we are in receipt of a student's test scores, we will contact that student automatically. Students who score 19 or higher on the ACT will be tentatively admitted and receive a "Notice of Tentative Admission." To finalize admission, the "Notice of Tentative Admission" needs to be returned to us along with an official copy of the students's transcript.

Students who have sent ACT scores of less than 19 but greater than 15 will be sent a special application for admission. This document must be completed and returned to the Admissions Office with a copy of the student's transcript. Students with test scores less than 15 must submit a regular application for admission.

All students who do not or have not sent ACT scores as a result of the national test dates must apply through the traditional application for admission process. (Details described below.)

REQUIRED MATERIALS AND PROCEDURES

HIGH SCHOOL APPLICANTS

Freshman may be considered for admission any time following their sixth semester in high school. Prospective high school students should submit:

1. Completed and signed application forms or Notice of Tentative Admission.
2. Two copies of the high school transcript signed with school seal, class rank, and if available ACT scores.
3. Official ACT scores (from Iowa City).

G.E.D. APPLICANTS

Eligible G.E.D. applicants will be considered for admission upon submission of the following materials:

1. Completed and signed application forms.
2. High school transcript.
3. Official G.E.D. results.
4. Official ACT scores (required of students less than 21 years of age).

NOTE: If the student did not request the results of the ACT examination be sent to SIU Carbondale (code 1144) at the time he registered for the exam, he should request that supplemental scores be sent to SIU by contacting ACT, Box 451, Iowa City, Iowa.

TRANSFER STUDENTS

Transfer students may be considered for admission as early as one year in advance of their intended enrollment at SIU or as late as the beginning of each semester. Transfer students with at least 26 semester hours or 39 quarter hours will be considered for admission upon submission of the following materials:

1. Completed and signed application forms.
2. Official transcripts from each institution attended after high school.
3. Work in progress form.

Transfer students with less than 26 semester or 39 quarter hours will be considered for admission by providing:

1. Completed and signed application forms.
2. Official transcript from each institution attended after high school.
3. Work in progress form.
4. High school transcript (2 copies).
5. Official ACT scores.

All students transferring from a non-regionally accredited institution must also submit a high school record and ACT scores regardless of hours completed, degrees earned, or grade point average. All students who are required to submit a high school record but who did not graduate should submit results of the G.E.D. examination and their incomplete high school record.

The School/College Relations Division of the Admissions and Records Office functions to assist schools by providing representatives for college day and night programs, counseling prospective students, visiting schools on request, distributing university materials, and providing general assistance to counselors. Counselors should feel free to contact members of this staff any time when information or materials are needed.

School/College Relations Division
Admissions and Records
Southern Illinois University
Carbondale, Illinois 62901
Phone: 618-453-4381
Toll Free (Illinois Residents) 800-642-3531

Thomas McGinnis	Director
George Mandis	Counselor
Debbie Perry	Counselor
Cathy Walsh	Counselor
Mike Fenton (Chicago Area Counselor)	

ADMISSION POLICIES, REQUIREMENTS

ADMISSION OF FRESHMEN

To be eligible for admission, applicants must be graduates of recognized high schools. Graduates of non-recognized high schools may be admitted to the University by completing successfully the General Educational Development Test or an entrance examination. Persons who have not completed high school may also qualify for admission by completing the GED test provided they meet the requirements to write this examination.

All admissions granted students while in high school are subject to the completion of high school work and maintenance of rank upon which the admission was made.

Students entering the University as freshmen are enrolled in the schools or colleges within the University that offer the academic programs they indicate they plan to pursue. Students who are undecided as to the course of study they want to follow are enrolled in General Academic Programs, pre-major advisement or selected other academic units.

EARLY ADMISSION POLICY FOR FRESHMEN

Exceptionally capable high school students who (a) have completed their junior year, (b) are recommended by the high school principals, and (c) are approved by the director of admissions of the University will be permitted to enroll for University courses to be taken concurrently with their senior year of high school work. Such students will also be permitted to enroll for University courses offered during the summer session between their junior and senior years of high school, without being concurrently enrolled in the secondary school. Enrollment during the summer for students participating in this early admission program is limited to eight semester hours.

It is expected that high school principals will judge each case on its individual merits, and that in making their selections and recommendations they will consider such things as:

- (a) the rank held by the students in their high school classes;
- (b) the results of any standardized test which the students may have taken;
- (c) the opinion of the students' teachers regarding their aptitude for college level work;
- (d) the opinion of the students' teachers regarding the students' having attained sufficient maturity to adjust to the social and emotional interactions involved.

ADMISSION OF FRESHMEN TO BACCALAUREATE PROGRAMS

Applicants seeking admission to a baccalaureate program who have an ACT composite score of 19 or higher (SAT 800) are eligible for admission any semester. As well, high school graduates who rank in the upper half of their graduating classes and who score a minimum ACT composite of 16 or higher (SAT 720) are also eligible for admission any semester.

High school graduates who rank in the upper two thirds of their graduating class or who earn a minimum ACT composite score of 16 or higher (SAT 720) are admissible for the spring semester on a conditional basis. The conditions are that the student must enroll for a minimum of 12 semester hours and complete at least 10 semester hours of graded work with a minimum overall "C" average. Students who do not meet the conditions of probationary admission will be suspended and will not be considered for re-admission for one academic year.

Students who have been admitted or who qualify to be admitted on a conditional basis may earn transfer credit at another college or university prior to their spring semester at SIU. However, to maintain their eligibility for spring enrollment, students must earn an overall "C" average in all work attempted.

A limited number of applicants who do not meet the University's entrance requirements may be granted admission to the fall semester through two special admission programs, Basic Skills and Special Supportive Services. All applicants who are not admissible by the above requirements will have their applications reviewed automatically for admission to one of these special programs.

ADMISSION OF FRESHMEN TO ASSOCIATE DEGREE PROGRAMS

Students seeking admission into the associate degree programs in the School of Technical Careers can qualify for admission any semester if they rank in the upper two thirds of their graduating class or score a minimum ACT composite score of 16 or higher (SAT 720). Students who do not qualify for admission to the associate degree programs under the above requirements may be granted conditional admission for the spring semester.

Students seeking admission to Dental Hygiene, Dental Laboratory Technology, Mortuary Science and Funeral Service, Nursing or Physical Therapist Assistant programs must meet university entrance requirements as well as those of the specific programs. In addition, students interested in Dental Hygiene are required to take the Dental Hygiene Aptitude Test. This test must be taken in April of a student's junior year or no later than November of the senior year.

Admission to SIU does not insure admission into one of the above two year associate degree programs. Interested counselors/students are urged to contact the individual department chairmen to determine what additional materials may be required for admission. All students will receive further information after their admission to the University.

Students may be admitted only during the fall semester to associate degree programs in Dental Hygiene, Physical Therapist Assistant, Commercial Graphics, and Dental Laboratory Technology.

ADMISSION OF G.E.D. APPLICANTS TO UNIVERSITY PROGRAMS

Non-high school graduates may be considered for admission by satisfactorily passing the G.E.D. examination assuming they submit all required application materials. Students who are less than 21 years of age are also required to achieve a minimum ACT score of 16 for admission to four-year programs.

ADMISSION OF TRANSFER STUDENTS

For academic purposes undergraduate applicants for admission to the University are considered to be transfer students when they present any amount of graded work for transfer consideration; otherwise, they are considered for admission as new freshmen.

In the event transfer students' grade point averages cannot be determined, their admission may require, in addition to a review of their college performance, standardized examinations and secondary school records.

Transfer students who have been suspended for any reason other than academic failure must be cleared by the Student Life Office before admission will be granted by the director of admissions.

Transfer students will be admitted directly to the school or college in which their major fields of study are offered. Students who are undecided about their major fields of study will be admitted to the General Academic Programs Division or selected other units.

Transfer students from non-baccalaureate programs will ordinarily be placed in the upper division unit in which they plan to continue their studies. Students admitted to associate degree programs of the School of Technical Careers will be enrolled in that academic unit.

ADMISSION OF TRANSFER STUDENTS TO BACCALAUREATE PROGRAMS

Students who have an overall "C" average as computed by SIU-C, 2.0 on a 4.0 scale, (all institutions) and are eligible to continue their enrollment at the last institution attended are eligible to be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Those students who submit evidence of scholastic aptitude can be considered for admission on a probationary basis. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more years; (2) military experience; (3) work experience; or (4) previous academic performance.

Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Students who have completed less than one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who are enrolled in a collegiate program for the first time and wish to transfer upon completion of their first term may do so if they meet the University's admission requirements for beginning freshmen. Admission may also be granted one year in advance for selected programs to students who are in their first term of a collegiate program provided they qualify for admission as beginning freshmen. Admission granted to a student on partial or incomplete records is granted with the condition that the student will have an overall "C" average and be eligible to continue at the last school attended at the time of matriculation. Students whose final transcripts indicate a grade point average or scholastic standing less than that required for unconditional admission will have their initial admission withdrawn.

Students who have graduated with an associate degree in a baccalaureate-oriented program from a two-year institution may enter Southern Illinois University at Carbondale any semester without regard to their average provided they have not taken additional college-parallel work since their graduation. If they have, their admission will be considered on the basis of their conformity to the University's regular transfer admission standards.

Students applying for admission to the University to pursue baccalaureate programs from programs not so oriented will be considered for admission as follows: (1) students from regionally accredited institutions will be considered on the basis of their conformity to the University's normal transfer admission standards, and (2) students who have completed a two-year or equivalent program with a "C" average in an institution which has not been accredited by a regional accrediting association will be admitted if the institution is (a) one falling within the normal purview of a regional accrediting association or (b) one recognized by an accrediting body which itself is recognized by the National Commission on Accrediting or the U.S. Office of Education. Students who have attended institutions as outlined in (2) above and who have not completed two-year programs or equivalent or who have less than a "C" average are considered for admission as entering freshmen.

ADMISSION OF TRANSFER STUDENTS TO ASSOCIATE DEGREE PROGRAMS

Students who have an overall "C" average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended are eligible to be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student for unconditional acceptance.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Those students who submit evidence of scholastic aptitude can be considered for admission on scholastic probation. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more years; (2) military experience; (3) work experience; or (4) previous academic performance.

A student who is admitted to an associate degree program as a transfer student and then decides at a later date to enter a four-year program must meet the University's baccalaureate admission requirements at the time of transfer.

New students may be admitted only for the fall semester to selected majors in the School of Technical Careers. Please consult the admission application guide to determine when new students can be admitted to two-year programs in the School of Technical Careers.

ADMISSION TO THE TEACHER EDUCATION PROGRAM

Admission to the University does not insure admission to the Teacher Education Program. Since some teaching fields are overcrowded, students are encouraged to investigate the feasibility of applying for a particular field early in their undergraduate careers by contacting their advisors or the major department in which they wish to specialize.

It is necessary to make formal application for admission to the Teacher Education Program. If a student has an overall grade point of at least 2.15 (4.0 scale) and a minimum of 30 semester hours of completed academic work, including Education 201, the student is eligible for admission to the program. Students with at least 60 semester hours and/or an Associate of Arts or Science Degree may be admitted to the Teacher Education Program (assuming other prerequisites are met) and register concurrently for Education 201, 301, and 303. Application forms are available in Room 108 of the Wham Education Building and must be returned, along with the student's latest transcript, to the same office. All applications must be submitted in person. Applications received by mail are not approved.

Admission to "pending" status in the program is granted by the Coordinator of Teacher Education Services in Wham 108. This status allows a students to begin work on the block of professional education courses and experiences. Additional approval from the department offering the teaching major is required before a student can complete the sequence of professional education courses, including the semester of student teaching.

If a student is not approved for advancement in the Teacher Education Program, he will be counseled about alternative degree programs.

ADMISSION OF INTERNATIONAL STUDENTS

In general, international students must meet the same academic standards for admission as those required of native students. As there is considerable variation between educational systems throughout the world, precise comparative standards are not always available. Therefore, international students are selected upon the basis of their former academic work and the students' financial resources for support during the normal period of time required to reach the objectives of their studies.

In addition to submitting copies of secondary school records and, when applicable, college transcripts, international students must also submit scores from TOEFL examination (Test of English as a Foreign Language). TOEFL scores are required of all international students who (1) have completed their secondary education in a country where English is not the native language, (2) have completed fewer than two years study in a United States high school, (3) have completed fewer than two years (60 semester hours) of collegiate training in an accredited United States college or university. Students who have completed their secondary education in a country where English is the native language are required to submit scores from either the American College Test or the Scholastic Aptitude Examination.

Students who have acquired immigrant status are also required to demonstrate English proficiency. English proficiency can be demonstrated by successful completion of the TOEFL examination or a special English examination administered by the Center for English as a Second Language. Immigrants who have completed at least two years of study in a United States high school, have earned sixty semester hours in a United States College or University, or have completed their secondary education in a country in which English is the native language are not required to submit TOEFL scores or write a special English examination.

International students whose secondary school and college records are acceptable for admission purposes must also receive high enough TOEFL scores for unconditional admission. Students with a TOEFL score of 525 or higher will be granted unconditional admission. Applicants whose TOEFL scores is between 475 and 524 will be admitted contingent upon completion of an English re-test administered by the Center for English as a Second Language. Students who fail to submit TOEFL scores, or who do not submit acceptable TOEFL scores, will be required to attend courses at the Center for English as a Second Language.

International students interested in making application to Southern Illinois University at Carbondale should address their inquiries to the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. At that time they will receive a copy of the Information for Prospective International Students booklet which outlines in greater detail information about the University and admissions and procedures of particular interest to international students.

ADMISSION OF SPECIAL CATEGORIES OF STUDENTS

Several types of students are given special consideration when seeking admission to the University. These are described below:

ADMISSION OF VETERANS

Veterans are admissible in good standing regardless of their previous academic records provided they have completed no college work since military separation or the college work they have completed since separation/discharge is of "C" quality or better. It is assumed a veteran has graduated from high school or has earned the GED equivalency certificate. A veteran is required to submit all of the necessary academic records to the Admissions Office before his or her application for admission can be processed.

BASIC SKILLS AND SPECIAL SUPPORTIVE SERVICES

The University operates two programs through which educationally and socially disadvantaged students are admitted to the University each fall who would otherwise not meet the University's regular admission standards. All applicants who do not meet established admission requirements will have their applications reviewed automatically for consideration.

ADMISSION OF ADULTS AS UNCLASSIFIED STUDENTS

Adults who have never enrolled in an institution of higher education may enroll in select courses as a non-degree student without submitting all of the academic records required of a regularly admitted student. Students in this category must be high school graduates or have passed the GED Test. Applicants interested in seeking admission as an unclassified student are encouraged to write to the Admissions and Records Office.

HOUSING INFORMATION

REGULATIONS

All SINGLE FRESHMAN under the age of 21, not living with parent or guardian, are required to live in on-campus residence halls, or similar privately owned residence halls. The privately owned residence halls must provide facilities, food service, and supervision comparable to on-campus housing.

All SINGLE SOPHOMORES under the age of 21, not living with parent or guardian, are required to live in on-campus residence halls or University approved off-campus housing. Sophomore approved housing includes rooming houses and residence hall apartments. Such facilities are not required to provide food service but are required to have University approved adult managers and are inspected and approved by the University.

There are no University regulations for JUNIOR, SENIOR, GRADUATE, MARRIED STUDENTS, VETERANS, OR those students 21 years of age or over on the first day of the semester.

UNIVERSITY FACILITIES FOR SINGLE UNDERGRADUATES

BRUSH TOWERS

The Brush Towers residential area, located on the southeast edge of the SIU campus consists of two 17 story air conditioned residence halls (Mae Smith and Schneider Tower). Each hall houses 816 students (male, female, co-ed).

UNIVERSITY PARK

The University Park residential area, located on the southeast edge of the SIU campus consists of one 17 story air conditioned residence hall (Neely Hall-male, female, co-ed), and three 4-story men's triad buildings (Allen, Boomer, and Wright Halls). (This area is highly recommended for students taking classes at the School of Technical Careers or SIU Airport since the bus service departs from this location).

THOMPSON POINT

The Thompson Point residential area, located on the shores of the SIU Campus Lake, consists of eleven halls with each housing approximately 120 students. (Male, Female, Co-ed).

CONTRACT COSTS

	Semester	Academic Year
Thompson Point (men and women) room and board	\$760	\$1520
University Park (men & women) room and board (two to a room)	\$760	\$1520
University Park (men) room and board (two to a room)	\$735	\$1470
Brush Towers (men and women) room and board	\$760	\$1520

Inquiries concerning on-campus housing should be directed to University Housing, Supervisor of Contracts, Washington Square.

UNIVERSITY FACILITIES FOR MARRIED STUDENTS

SOUTHERN HILLS

The Southern Hills residential area located on the southeast edge of the SIU campus consists of efficiency, one bedroom and two bedroom apartments for married students.

EVERGREEN TERRACE

The Evergreen Terrace residential area located on the southwest edge of the SIU campus consists of two and three bedroom apartments for married students.

MARRIED STUDENT HOUSING COST

Efficiency apartments	\$124/month
Furnished one bedroom	\$140/month
Furnished two bedroom	\$151/month
Unfurnished two bedroom	\$140-146/month
Unfurnished three bedroom	\$155/month
The University pays all utilities. Interested students should contact Family Housing, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. 618/453-2301.	

OFF CAMPUS FACILITIES

Single student facilities include residence halls, apartments, rooming houses and trailer courts. Married student facilities include apartments, rooming houses, private houses and trailers. Students may obtain information on off campus facilities through the Housing Information Center, Washington Square, Building B, SIU, Telephone 618-453-2301.

GENERAL INFORMATION

APPLICATION FOR HOUSING: All students automatically receive information and applications for housing as part of the admissions process.

TERM OF CONTRACT: Housing contracts are written for the Fall and Spring semesters and remain in effect for these two semesters. Summer contracts are issued separately. Students who desire housing during both the summer and the fall should submit two separate housing applications.

SMALL GROUP HOUSING: This residential area primarily provides housing for recognized sororities and fraternities. Assignment to these areas is by invitation and interested students should contact fraternal organizations or Fraternities and Sororities Office, 618-536-2338.

MEAL SERVICE: In all areas except married student housing and Small Group Housing, meals are provided on the basis of 20 meals per week, 3 meals each day, 6 days per week, and breakfast and noon dinner on Sundays. Unlimited second helpings are offered.

SPECIAL INTEREST GROUPS: Students may request to be assigned to areas where their special interest can be accommodated, such as transfer student areas, upperclassman, graduate areas, and President Scholars areas.

COED LIVING: Co-educational living is available at all areas except to first semester freshmen students.

ROOM FURNISHINGS: All rooms are equipped with twin size beds, closet space, chest of drawers, desks, study chairs, and draperies. Free weekly linen service provides students with two sheets and one pillow case. Room arrangements are two students per room sharing private bath with adjoining two student room, except University Park men which has community showers.

ROOMMATES: New students both freshman and transfer have the opportunity to select a roommate of their choice before arriving provided the request is mutual and each student has a signed contract on file with advance payment by June 1, and space exists at the time room assignments are made.

REGISTRATION AND ADVISEMENT

Two registration periods are available each semester: Advance and Final.

Advance Registration is conducted during approximately 11 weeks of the preceding semester. New freshmen and transfer students entering in the Fall Semester have several weeks during June, July and August set aside for the purpose of orientation advisement and registration. The Advance Registration period is highly recommended for new freshman and transfer students as it permits maximum course selection, counseling and campus orientation.

Final Registration is conducted during the last two weekdays preceding the start of the semester. Late applicants and students who did not advance register will complete the advisement and registration process during this period.

A similar procedure is used for advisement and registration for the spring semester and summer session.

ADVISEMENT

All new students (freshman, transfers) are assigned an advisement appointment and notified by mail. Appointments are mailed out for the semester indicated around the following dates: fall, June 15; spring, October 15; summer, April 1.

All new students will receive additional information on the advance registration procedures at the time they receive their advisement appointment. Should a student find it is impossible to keep his advisement appointment he should contact his advisement unit and suggest an alternative date during the advance registration period.

Re-entry and continuing students must make their own advisement appointment with their academic unit advisement center.

PROCEDURES

Advance registration usually takes one-half day unless the student elects to take advantage of various proficiency examinations. Parents are encouraged to accompany their son or daughter.

LODGING AND PARKING

Adequate lodging facilities are available in and near the community at various motels. Students advance registering during the summer for fall semester may acquire overnight lodging on campus.

In addition, guest parking permits are included in the registration information packet. The Arena parking lot, Student Center lot, and metered stalls on campus are available for campus parking to visitors.

FEE ASSESSMENT

Students who have been awarded scholarships (i.e., ISSC) should bring a copy of the award notification so that their fees can be assessed accordingly.

ORIENTATION: TWO HOURS

Guests are welcome to tour the campus or visit offices related to their special needs (housing, financial assistance, etc.).

ADVISEMENT: APPROXIMATELY FOURTY-FIVE MINUTES

A student is advised of requirements and proficiency opportunities, discusses vocation plans, and then selects appropriate courses.

REGISTRATION: ONE HOUR

Student selects the time his classes will meet, obtains I.D. badge, and acquires fee statement.

ADVISEMENT CENTERS

General Academic Program Advisement (Woody Hall)	453-4351
School of Technical Careers (STC Campus)	536-5578
School of Agriculture (Agriculture Building)	453-2469
College of Business and Administration (General Classroom Building).	453-5250
College of Communications and Fine Arts (Communications Building).	453-4308
College of Education (Wham Education Building)	453-4394
School of Engineering and Technology (Technology Building)	453-2261
College of Human Resources (Home Economics Building)	453-2581
College of Liberal Arts (Faner).	453-3388
College of Science (Neckers Building).	536-5537
Architectural Technology* (Technology Building).	453-2524
Administration of Justice (Faner Building)	453-5701
Aviation Technology* (Southern Illinois Airport)	536-3371
Physical Therapy Assistant* (Wham Education Building).	453-2361
Art (Allyn).	453-2032
Music (Altgeld Hall)	453-2264

*STC Programs.

COSTS

TUITION AND FEES

Tuition and fees charged students are established by the Board of Trustees and are subject to change whenever conditions necessitate. All assessments are on a per-hour basis, with 12 hours considered full time. Students will be assessed the following tuition and fees each term: The following fee schedule is for the 1977 Fall Semester.

ON-CAMPUS UNDERGRADUATE FEE SCHEDULES

Semester Hours Enrolled	Illinois Residents			Non-Illinois Residents		
	Tuition	Student Fees	Total	Tuition	Student Fees	Total
1	\$ 22.00	\$ 11.34	\$ 33.34	\$ 66.00	\$ 11.34	\$ 77.34
2	44.00	14.42	58.42	132.00	14.42	146.42
3	66.00	19.75	85.75	198.00	19.75	217.75
4	88.00	25.25	113.25	264.00	25.25	289.25
5	110.00	30.75	140.75	330.00	30.75	360.75
6	132.00	76.25	208.25	396.00	76.25	472.25
7	154.00	81.75	235.75	462.00	81.75	543.75
8	176.00	87.25	263.25	528.00	87.25	615.25
9	198.00	92.75	290.75	594.00	92.75	686.75
10	220.00	98.25	318.25	660.00	98.25	758.25
11	242.00	103.75	345.75	726.00	103.75	829.75
12+	262.00	109.25	371.25	786.00	109.25	895.25

A student registered for 6 or more semester hours will pay the full Student Medical Benefit Fee of \$40.00, which will entitle him to full medical benefits at the Health Service. An on-campus student may seek a refund of the Student Medical Benefit Fee within the first four weeks of each semester by contacting the administrative director of the Health Service. (The on-campus undergraduate student fee includes allocations to the Student Medical Benefit Fee, Student Welfare and Recreation Fund, Athletic Fund Fee, Student Center Fee, Student Activity Fee, Student Attorney Program, and Student-to-Student Grant.)

The Student Attorney Program Fee and Student-to-Student Grant Program Fee are voluntary payments. Students may receive full refunds for these fees by requesting such within ten days following full tuition and fee payments.

Payment: Tuition and fees are payable by semester. A student who advance registers receives a fee statement and may pay either by mail or in person at the Bursar's Office, by the deadline date specified on the statement. Students who register for classes who do not pay their tuition and fees by the specified deadline will have their registrations cancelled. A student who registers during final registration must pay tuition and fees at the time of registration.

A student holding a valid scholarship is exempt from tuition and fees to the extent prescribed by the scholarship. An Illinois State Scholarship may cover all tuition and fees or it may be a partial award.

Tuition Costs by Year: Full time Illinois residents will pay \$742.50 per year for tuition and fees (fall and spring semesters). Full time out-of-state (non-residents) students will pay \$1790.50 per year for tuition and fees.

Total University Charges: Full time Illinois residents can expect to pay up to \$1520.20 per year in housing costs bringing total university charges to approximately \$2262.50 per year for room and board, tuition and fees. Full time out-of-state students can expect to pay up to \$1520.00 per year for housing bringing total university charges to approximately \$3310.50 per year for tuition and fees, room and board.

Textbooks: Students must purchase all textbooks (estimated between \$100-\$150 per year).

Personal Expenses: Includes transportation to and from home, entertainment and personal items estimated at approximately \$650.00 per year.

FINANCIAL ASSISTANCE

The Office of Student Work and Financial Assistance at Southern Illinois University makes every attempt to economically insure that all students have the opportunity to matriculate and continue their education at SIU.

Every effort is made to provide a "package" of financial assistance including Scholarships, where warranted, Grants if need is shown, Work for all students who desire it regardless of financial need, and Loans such as the National Direct or Guaranteed.

SIU distributed over 22 million dollars in financial aid last year, over 7000 student workers were utilized, and approximately 80% of all the students on the SIU campus received some form of financial aid.

TYPES OF ASSISTANCE

SCHOLARSHIPS

Illinois State Scholarship Commission
Monetary Award
Southern Illinois University Scholarship
Illinois State ROTC
National Guard
Junior/Community College Scholarship
National Collegiate Athletic Association
Award
Illinois State Military Scholarship
General Assembly Scholarship
Bi-Lingual Scholarship
Dependents of Prisoners of War and
Missing in Action
Survivors of Policemen or Firemen Killed
in the Line of Duty
Air Force ROTC

GRANTS

Basic Educational Opportunity Grant
(BEOG)
Supplemental Educational Opportunity
Grant (SEOG)
Special Education Traineeships
Vocational Rehabilitation

LOANS

National Direct Student Loan (NDSL)
Illinois Guaranteed Loan
Guaranteed Loans for Out-of-State
Students
Short Term Emergency Loans

PART-TIME EMPLOYMENT

Student Work (On-Campus)
Federal Work-Study (On-Campus)
Student Work (Off-Campus)
Cooperative Education Work Program
College Work for Academic Credit

OTHER

Veterans - Public Law 348 G.I. Bill
Veterans - Form 634 War Orphans
Veterans - Division of Vocational
Rehabilitations Public Law 815
Veterans - Pension for Dependent of
Deceased or Disabled Vets (Form
674)
Social Security
Railroad Retirement

GENERAL INFORMATION

ACT/FFS

Prospective students seeking financial aid from SIU must submit an American College Testing Program Family Financial Statement to the American College Testing Program, Financial Aid Operations, P.O. Box 1000, Iowa City, Iowa 52240

*SIU does not use the PCS (Parents Confidential Statement).

All Illinois undergraduate students are urged to apply for the Illinois State Scholarship Commission (ISSC) monetary award as well as the Basic Educational Opportunity Grant Program (BEOG).

As SIU receives the processed ACT/FFS from Iowa City students are automatically sent applications for programs they appear to be eligible for.

Students and counselors desiring additional information should contact:

Mr. John Barnes
Coordinator of Program Information and Counseling
Office of Student Work and Financial Assistance
Southern Illinois University
Carbondale, Illinois 62901
(618-453-4334)

STUDENT SERVICES: STUDENT ACTIVITIES/ATHLETICS/INTRAMURALS

SERVICES

Career Planning and Placement Center, 618-453-2391

This office functions to provide students with the opportunity to explore occupations and develop vocational interest, examine individual potentials and interests, examine job market opportunities, and be assisted in placement into a career. Vocational and educational counseling, testing, and placement services are provided. Students may also arrange for programs such as the Graduate Record Examination, Miller Analogy test, Law School Aptitude test, etc.

Counseling Center, 618-453-5371

The Counseling Center is staffed with professional counselors qualified to assist students with personal development and resolution of problems. Personal problems, marital adjustment difficulties, social skill development, parental conflict, and sex role awareness development are areas of frequent concern to students. Counseling is provided through one to one student-counselor contact or in group discussion within an atmosphere of confidentiality and trust.

Specialized Student Services, 618-453-5738

This office functions to provide specialized services to disadvantaged and physically handicapped students. Particular emphasis is placed on assisting the handicapped student with SIU being one of the most well equipped campuses in the nation. All the buildings on the SIU campus are fully ramped, special elevators are available, special earphone jacks are available in specific classrooms. The Specialized Student Service Division helps find attendants for the severely handicapped, operates a special bus service and provides emergency wheelchair repair service. All handicapped students have their admission cleared through this division so to insure that necessary facilities are available and that arrangements are complete for accommodating the student with special needs.

EXTRA-CURRICULAR ACTIVITIES

Student Activities, 618-453-5714

Student Activities is made up of concerned students whose interests are personified through the functions of the Activities Council. The decision as to what will be offered to the student body is the responsibility of the Activities Council, with the final authority resting under student control. There is an office staff of professional activities consultants available as advisors and fiscal administrators.

Some of the general areas of concern for this year will include the environment, mass media, social events, and cultural affairs.

The best guides to the many cultural, social, and recreational events are the Daily Egyptian and the local newspaper, the Southern Illinoisian.

Social Activities

The University annually sponsors over 3,000 student activities. These include formal, semi-formal, and informal activities.

Annual all-campus events include Homecoming, Parent's Weekend, International Festival, Theta Xi Variety Show, Convocations, Celebrity Series, Arena Series, Community Concert Series, films (movie hour and cinema classics), theater productions, and various instrumental and vocal performances. In addition, the calendar includes activities sponsored by Student Government, Saluki Marching Band, Debates, and important meetings, lectures, seminars, symposia, colloquia, and conferences.

Student Government, 618-536-3393

The Student Government is composed of the Campus Senate, which reflects student's concerns, passes bills and resolutions on student affairs, and gives recognition and financial assistance to student organizations.

Social Organizations

There are 241 recognized university-approved student organizations on the SIU campus. Every student has the opportunity to become actively involved in both academic and departmental organizations as well as an exhaustive number of social organizations.

Almost every ideology and special interest group is represented on the SIU campus, all which benefit students greatly in both their academic, professional and social development.

Interested students should feel free to contact the Student Activities Office for information on special student groups.

INTERCOLLEGIATE ATHLETICS

Southern Illinois University boasts one of the country's best all-around sports programs. The Salukis compete successfully in the National Collegiate Association's Division I, which includes the nation's top 126 athletic programs.

In the last 15 years, the Salukis have won national team championships in basketball, gymnastics, cross country, and golf as well as hundreds of individual national championships in all 11 intercollegiate sports.

The Saluki athletic program was recently enhanced with the admission of SIU into the Missouri Valley Conference. In addition to its strength in several other sports, the Valley is recognized nationally as one of the top two or three basketball leagues in America.

Recent highlights for men's athletics include the 1977 Missouri Valley Tennis Championships, 1976, 1977 Missouri Valley Track Championships, 1977 Central Collegiate Track Championship, as well as an 11th finish in the NCAA Indoor Track. The Track program annually ranks among the nation's top 15 teams whether it be cross-country, indoors, or outdoors. The Salukis are a feared contingent on the Florida, Kansas, Drake and California relays circuit. The SIU men also won the 1977 Missouri Valley Basketball Championship and participated in the 1977 NCAA Basketball Tournament. The Saluki baseballers, twice runner-up in the College World Series, won the 1977 Missouri Valley Baseball Championship and are on their way to another College World Series with their current third place ranking in the NCAA. The Saluki swimmers finished 16th in the NCAA for 1977 and the gymnastics team finished 8th in the NCAA.

Football, too, has taken on a new look with the addition of former Chicago Bears great Gale Sayers as SIU's new Athletic Director and Ray Dempsey, former assistant coach with the Detroit Lions, as the new head football coach.

A rising women's athletics program entails competition in eleven sports. The SIU women own their own share of national and state titles. The SIU women's gymnastics team in particular have brought SIU world wide recognition with their repeated national championships.

Coaches (Men's Athletics)

Baseball: Richard Jones
Basketball: Paul Lambert
Football: Ray Dempsey
Golf: Lynn Holder
Gymnastics: Bill Meade

Swimming: Bob Steele
Tennis: Dick LeFevre
Track-Cross Country: Lou Hartzog
Wrestling: Linn Long

Coaches (Women's Athletics)

Badminton: Not named at time of printing
Basketball: Cindy Scott
Cross-Country: Claudia Blackman
Field Hockey: Julie Illner
Golf: Sandy Blaha
Gymnastics: Herb Vogel

Softball: Kay Brechtelsbauer
Swimming: Inge Renner
Tennis: Judy Auld
Track and Field: Claudia Blackman
Volleyball: Debbie Hunter

Athletic scholarships are awarded by coaches of individual sports. Applicants interested in obtaining more information on athletic scholarships are encouraged to contact the coach in the area of their interest.

Intercollegiate Athletics for Men

Telephone: 618-453-5311
Location: Arena 119

Intercollegiate Athletics for Women

Telephone: 618-536-5566
Location: Davies Gym

Intramural Athletics (Men and Women)

SIU provides extensive opportunities for students to participate in intramural athletics. Competition in a variety of sports is available. In addition, a new 140,000 square foot recreation building is now in operation.

Intramural Athletic Office: 618-536-5521

MOTOR VEHICLES

REGISTRATION

An eligible student may register only his own vehicle or a vehicle of a member of his family. Only eligible students may park on campus.

ELIGIBILITY

Graduate students and the following categories of undergraduate students may apply for permission to use, operate, park, or possess motor vehicles on campus during posted hours, with the final approval to be given by the dean of Student Services:

1. Juniors and seniors (56 credit hours or more).
2. Veterans with two years of military service.
3. Married students.
4. Students residing in the home of parents or guardian.
5. A student who requires a motor vehicle for reasons of health or physical condition as certified in writing by the Health Service.
6. A student who is certified in writing by the Office of Student Work and Financial Assistance to require a motor vehicle for purposes of employment.
7. A student not covered by 1 through 6 preceding whose reason for requiring a motor vehicle is judged valid by the appropriate dean of students and so certified in writing.

APPLICATION AND FEE

Each applicant must present a valid operator's license, vehicle registration card or notarized license-applied-for receipt, proof of liability insurance, and university identification card. A student must also present a receipted fee statement card. Dealer license plates are not acceptable for motor vehicle registration. If a parking decal is purchased, a fee is charged and is determined by the type of decal an applicant is eligible for and receives, currently \$1-\$30.

Yellow registration decals will be issued for \$1.00 upon proper application.

All decals are valid until September 30, or until revocation or loss of eligibility. The extent of the motor vehicle privilege granted to any person shall be based on need or advanced academic standing, in general accordance with the following criteria:

1. First opportunity to obtain blue decals will be granted to full-time employees and to students whose health or physical condition require the privileges thereof.
2. All employees and students eligible in accordance with any of the categories mentioned under ELIGIBILITY may apply for red decals.
3. A yellow decal serves as evidence of the proper registration of a motor vehicle by an eligible student. It does not authorize any parking on campus (except at fee lot at Student Center or parking meters) at any time during the posted hours.
4. Temporary permits may be issued in unusual circumstances.

NOTE: Decals issued, according to color, indicate the nature of any parking privileges permitted the holder.

5. Guest permits are available to University visitors and offices, guests of University housing residents and guests of the Baptist Student Center free of charge.

For additional information or parking brochure contact:

University Parking Division
Southern Illinois University
Washington Square Building D
Carbondale, Illinois 62901
Phone: 618-453-5369

ACADEMIC INFORMATION

Special Recognition
Acceleration Programs
Special Degree Programs
Scholastic Standards
Basic Graduation Requirements
General Studies for the Transfer Student
Institutional Comparison
Approved Substitutes
Evaluation of Transfer Credit

UNIVERSITY RECOGNITION OF HIGH SCHOLASTIC ACHIEVEMENT

A Scholastic Honors Day convocation is held each spring to honor students exhibiting high scholastic achievement. Candidates for a bachelor's degree in May or August who have maintained a grade point average of 3.50 or higher for all of their work through the fall semester of their senior year receive special honor. All other students have a 3.50 average are also honored at the convocation. The 3.50 average is required for all work taken at Southern Illinois University at Carbondale and, in the case of transfer students, for the total record. Except in the case of graduating students, students must be attending full time to be eligible.

Graduating students with scholastic averages of 3.90 or higher receive University highest honors; those with 3.75 - 3.89 averages receive University high honors; and those with 3.50 - 3.74 receive University honors. This is recorded on the commencement program, on the student's academic record cards, and on their diplomas. The averages are required for the work taken at Southern Illinois University at Carbondale and, in the case of transfer students, for the total record.

Successful participants in all-campus honors programs which require maintenance of appropriate minimal scholastic standards, such as the President's Scholar Program receive recognition by notation on their academic records and on their diplomas. Honors courses, individual honors work, and honors curricula, all designed to serve students with high scholastic potential, are offered by departments in the School of Agriculture, the home economics departments in the College of Human Resources, the College of Liberal Arts, and the College of Science. A departmental or unit honors program consists of no fewer than six nor more than fourteen semester hours in research or independent study which is counted toward the students' majors. Some honors programs require a comprehensive examination at the end of the first semester, but not from one school year to the next.

A variety of professional, departmental, and fraternal honorary organizations offer recognition and membership based upon scholastic achievement. Election or selection to most honoraries is noted at the Scholastic Honors Day convocation.

PROGRAM FLEXIBILITY FOR THE STUDENT

Southern Illinois University at Carbondale offers students a wide variety of programs on all higher educational levels. In addition, the University gives constant attention to methods whereby it might better serve present day educational needs. Described below are opportunities provided students to either (1) earn credit through means other than the traditional classroom method or (2) develop programs better suited to individual student needs than are the already established programs. While greater flexibility is the goal, the University exercises appropriate supervision to ensure that flexibility is accompanied by educational soundness.

CREDIT BY MEANS OTHER THAN CLASSROOM ATTENDANCE

Several methods are provided for students to earn credit by means other than the traditional classroom method. The methods currently available are described below.

HIGH SCHOOL ADVANCED PLACEMENT PROGRAM

Through the High School Advanced Placement Program high school students who are qualified through registration in an advanced placement course in their high schools or through other special educational experiences may apply for advanced placement and college credit through the Advanced Placement Program of the College Entrance Examination Board, 475 Riverside Drive, New York, New York 10027. To receive credit, students must earn a grade of 3, 4, or 5. Interested high school students should write the Office of Admissions and Records to learn the current listing of courses for which credit may be earned through this program.

Ordinarily, the maximum credit granted through advanced placement examinations is fifteen hours. It is nonresident credit, does not carry a grade, and is not used in computing the students' averages. Credit granted at another accredited college or university under this plan is transferable to this University up to a maximum of fifteen hours. Students may appeal to academic deans to be granted more than fifteen hours.

COLLEGE LEVEL EXAMINATION PROGRAM

Through the General Examinations of the College Level Examination Program (CLEP), entering freshmen may be awarded credit which will count toward fulfilling General Studies requirements. With a score of 480 or higher on the appropriate examination, six hours of credit will be awarded in the fields of science, social studies, or humanities. These hours will count in the General Studies Areas A, B, or C respectively. With a score of 580 or higher on the mathematics examination, the entering freshman will be awarded four hours of credit which will be equivalent to GSD 112 and GSD 113. With a score of 480 or higher on the English examination, students are given the opportunity to write an essay examination in order to gain proficiency credit in GSD 101 (three semester hours). If the student has completed college level work in any discipline included in the CLEP examination prior to taking the CLEP examination, credit will not be awarded. Transfer students who have CLEP scores on transcript meeting the above requirements will receive that credit at SIU-C.

CLEP examinations should be taken at one of the national testing centers and the results sent to the local CLEP coordinator. The results are then forwarded to the Office of Admissions and Records for evaluation.

PROFICIENCY EXAMINATIONS

Through its proficiency examination program the University recognizes the importance of providing encouragement for academically talented students. Such students are permitted to make application to demonstrate the mastery of certain courses through proficiency examinations. Application forms are available at the departmental offices.

The following general rules govern the proficiency examinations for undergraduate credit.

1. Students who believe they are qualified to take a proficiency examination should check with the department offering the course to determine their eligibility to do so; students scoring in the top ten percent of ACT are particularly encouraged to avail themselves of this opportunity.
2. Credit not to exceed thirty hours (fifteen hours toward an associate degree), including credit through the College Entrance Examination Board, Advanced Placement Program, and the College Level Examination Program may be earned through proficiency examinations. Credit will be nonresident. (A combined total of 40 hours may be earned through proficiency examinations and credit for work experience.)
3. Upon passing proficiency examinations students are granted course credit and receive a Pass grade. Their records will show the name of the course, the hours of credit granted, and a notation "credit granted by proficiency examination." Students who fail a proficiency examination receive a Fail grade. This results in no penalty to the students. They will not receive credit and their records will show nothing regarding the proficiency examination. However, the proficiency examination grade report form will be filed in the students' folders for reference purposes.
4. Students may not take proficiency examinations for the same course more than one time. Neither may they take a proficiency examination in a course in which they have previously received a grade. Any student currently enrolled in any of the courses covered by any test may not take that test after completion of the second week of classes.
5. No credit granted by proficiency examinations will be recorded until the student has earned at least 12 hours of credit of "C" grade or above in residence at Southern Illinois University at Carbondale.

CREDIT FOR WORK EXPERIENCE

Work experience in the form of internships or student teaching is a common instructional technique. Southern Illinois University at Carbondale also permits certain undergraduate programs to grant credit for work experience that relates to students' areas of specialization. The credit granted is to apply to the major program and is awarded only upon approval by the major departments. Credit earned by work experience is limited to 30 hours and any combination of credit for proficiency examinations and credit for work experience is limited to 40 hours. Credit granted for work experience is considered nonresident credit when granted for work that is not part of a regular instructional course. Students should consult with their major departments to see whether they approve credit for work experience.

THREE-YEAR BACCALAUREATE DEGREE PROGRAM

It is possible for students to complete the regular four-year baccalaureate degree program in three years by utilizing proficiency examinations. The equivalent of one year of credit (30 semester hours) may be earned by this method. Students who desire to follow the three-year program should make the fact known to their academic advisors at the earliest possible date so their eligibility can be determined. A combination of programs may be employed to accumulate these 30 hours as described above in the section on Credit by Means Other than Classroom Attendance.

PRESIDENT'S DEGREE PROGRAM

The President's Degree Program is responsible for working with the colleges and their departments to provide a distinctive educational experience for those students of high motivation and talent who are interested in pursuing interdisciplinary studies on the undergraduate level. The basic objective of this program is to provide the opportunity to create the learning environment which optimally suits such students' needs and talents.

To help accomplish the above objective two special provisions are made for students admitted to the program. Upon submission of the College Level Examination Program General Examinations (with scores consistent with the University's acceptance of CLEP credit) all requirements for graduation other than the total number of hours of credit may be waived. Also, program members will choose an appropriate faculty advisor to help them plan logical and challenging curricula enabling them to attain their personal academic goals. Students may remain in the program as long as they are able to (a) show they are receiving some benefit from membership consistent with the objectives of the program, and (b) maintain a 3.0 grade point average. Degrees will be awarded through the regular degree granting units.

Those students who are in the top seven percent on national test scores and rank in the top ten percent of their high school classes are eligible to apply for admission as freshmen. Continuing and transfer students should have a 3.5 grade point average to warrant serious consideration for membership.

Inquiries about the President's Degree Program should be addressed to the director, President's Scholar Program.

SCHOOL OF TECHNICAL CAREERS INDIVIDUALIZED BACCALAUREATE PROGRAMS

The University provides an opportunity to continue educational pursuits toward a baccalaureate degree for students possessing an occupational, technical, or other similarly connotated educational background. The School of Technical Careers offers a Bachelor of Science degree in technical careers programs for such students. Individually designed programs are developed to meet the individual needs of the students. Programs do not duplicate baccalaureate programs already offered by other academic units.

The two additional years of course work will be determined cooperatively by the student, the degree granting unit, and a representative from the admissions office. Additional information may be obtained by writing the Admissions and Records Office and requesting Capstone information.

The regular University baccalaureate admission and other academic requirements and regulations are followed in the technical careers program. Persons interested in further information about this program should contact Dr. John Reynolds, STC Dean's Office, 453-5235.

UNIVERSITY STUDIES DEGREE PROGRAM

The University Studies Program provides the student with another option for earning a baccalaureate degree. The program is intended for the student who wants a broad, general education and does not wish to specialize on the undergraduate level. In fact, the program was proposed to serve the many students who express the desire to receive a degree, but whose interests are so varied as to preclude a major in a traditional discipline. The student who is approved to pursue a degree in University Studies can outline his own curriculum with few restrictions.

Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies degree program should consult with the director of the General Academic Programs Division for more information prior to entrance into the program.

SPECIAL MAJOR

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suited to their special requirements.

CAPSTONE PROJECT

The Capstone Program enables community college graduates in occupationally oriented programs to complete a baccalaureate degree with two additional years of schooling. The program will prepare graduates for management-level positions in business, industry, and agriculture or occupational teaching.

Five degree granting schools at the University are involved in the Capstone Program and students may complete degrees in any of the following areas:

School of Agriculture
Agricultural Education
Agricultural Industries
Agriculture General
Animal Industries
Plant and Soil Science

School of Engineering and Technology
Industrial Technology
Industrial Technology (Occupational)
Mining Technology

College of Human Resources
Child and Family
Clothing and Textiles
Food and Nutrition

College of Education
Business Teacher Education
Home Economics Education
Occupational Education

School of Technical Careers
Baccalaureate Degree Programs
Individualized Programs

SCHOLASTIC STANDARDS

The matter of scholastic standing is quite often of importance to students both while in school and later when they present a transcript of their educational record in support of their application for employment or additional schooling.

At the end of each semester or session of attendance a grade report is prepared for each student showing, in addition to the grades earned that semester or session, what his scholastic standing is and what his grade point average is for the semester or session, and for his over-all record. It is important that students understand the University's system for computing grade point averages and the various grade point average requirements.

Transferred grades are not to be used in determining students' calculated grade point average, except that transfer students who are admitted on probationary status will be required to earn a 2.0 average semester by semester until a total of 12 semester hours has been earned, before students are removed from probation.

The significance of the above should be clearly understood by transfer students when studying the general baccalaureate degree requirements. A 2.00 (C) average is required for the work taken at this University.

In computing students' grade point averages all grades of A, B, C, D, E, WE, and ABS are included in determining the number of calculated hours. Each hour of these grades (1 hour of A is worth 4 grade points) is given its numerical grade points, and the total number of calculated hours is then divided into the total number of grade points to determine the student's grade point average.

Effective with the 1971 summer quarter all earned grades carrying grade point values are considered when computing students' grade point averages, including each earned grade in a repeated course that is taken during the 1971 summer quarter and thereafter. When computing averages through 1971 spring quarter the policy contained in the 1970-71 Undergraduate Catalog is followed.

SCHOLASTIC PROBATION AND SUSPENSION SYSTEM

Students are expected to make satisfactory progress toward a degree, certificate, or other approved objective. To ensure that students are making progress, their records are checked against the regulations below. Students in Good Standing are placed on Scholastic Probation when they have the following number of passed semester hours and more than the corresponding number of negative points:

Passed Hours	More Than Negative Points*
Fewer than 56 semester hours	12
56 but fewer than 86 semester hours	8
86 or more semester hours	4

*Negative points are the number of grade points below the number which would be required for a "C" average. For example, a student with 50 calculated hours must have 100 grade points for a "C" average. If he has only 87 grade points, he has 13 negative points. Negative points may be calculated by assigning two positive points to each hour of A, one positive to each of B, none of C grades, one negative point for each hour of D, and two negative for each of E. Total positive and negative points are added and the difference between the two totals with a negative result would be the negative points.

Students on Scholastic Probation who earn below a "C" (2.0) average for a semester or summer session will be placed on a status of Scholastic Suspension. Students on Scholastic Probation who earn a "C" average or above for the next semester or summer session will be allowed to continue in attendance on Scholastic Probation until their averages are raised to the point where they have fewer than the allowable negative points listed above.

Transfer students admitted on Scholastic Probation will remain in that status until they have earned a minimum of 12 semester hours of credit with at least a "C" average at Southern Illinois University at Carbondale. If they earn below a "C" for any session while on Scholastic Probation, they will be placed on Scholastic Suspension.

Students placed on Scholastic Suspension may seek reinstatement after a minimum of two semesters' interruption but must furnish tangible evidence that additional education can be successfully undertaken.

While on Scholastic Probation a student is subject to certain conditions that do not prevail when he is in Good Standing. These are as follows:

He may not enroll for more than 14 hours per semester unless approved to do so by the dean of his academic unit.

Other limitations may be established by the appropriate officials of the University or by the academic unit within which the student is enrolled.

BASIC GRADUATION REQUIREMENTS

All students are expected to complete the following basic requirements for the bachelor's degree from Southern Illinois University at Carbondale.

1. A minimum of 120 semester hours of credit in approved courses.
2. The last 30 semester hours must be earned in residence at SIU, if a student has transferred from another school.
3. An overall "C" average and at least a "C" average in the major. The average requirements apply to work taken at Southern Illinois University. The University does not carry the transfer grade point average.
4. Completion of general studies requirements, upper division unit requirements, and the requirements of the student's major and minor concentration.
5. The tests on the Constitution of the United States and the State of Illinois are required before graduation. If the student has taken the test at another school, the requirement will be met, provided passing the test is recorded on the transcript.

The following two special regulations apply to students who transfer from two-year institutions:

1. The credit accepted from accredited two-year institutions is limited only by the provision that 60 semester hours must be taken at Southern Illinois University or at any other approved four-year institution, except that the residence requirement must be met.
2. An associate degree in a baccalaureate-oriented program from an accredited institution will be accepted as meeting all of the General Studies requirements of Southern Illinois University at Carbondale. The degree will not, however, waive specific academic unit or major and minor requirements which may be offered via General Studies courses.

UNIT OF CREDIT

Southern Illinois University at Carbondale converted from the quarter to early semester calendar effective fall 1974. All references to hours of credit in this publication are to semester hours unless otherwise specified. One semester hour of credit is equivalent to one and one-half quarter hours. One semester hour of credit represents the work done by a student in a lecture course attended fifty minutes per week for one semester and, in the case of laboratory and activity courses, the stated additional time.

CLASS STANDING

Southern Illinois University at Carbondale requires students to earn at least 120 semester hours of acceptable credit in order to receive a baccalaureate degree. For academic classification purposes a freshman is a student who has completed fewer than 26 hours; a sophomore, from 26 through 55; a junior, from 56 through 85; and a senior 86 or more.

ACADEMIC LOAD

The normal academic load for students is 15-16 hours. The maximum is 18 hours, 21 with a Dean's approval.

The University considers 12 hours as the minimum number to constitute full-time attendance. This is the figure used for enrollment reporting purposes, by the Illinois State Scholarship Commission, and for Public Law 358 on the undergraduate level. Students attending school under some type of scholarship or assistance program that requires them to be enrolled as full-time students should check with the University office administering the program on this point. Further information on Public Law 358 is available at the Student Work and Financial Assistance Office.

Students on scholastic probation may not take more than 14 hours without approval of the head of their academic unit. Students employed full-time may not register for more than eight hours.

INSTITUTIONAL COMPARISON*

college name

Catalog:

Notes:

Comments:

*As soon as time permits, the university will furnish your community college the information to be inserted in this section. This information will pertain only to your college and the Official Evaluation of Transferred Credits of students entering SIU from your college.

THE TRANSFER STUDENT AND GENERAL STUDIES. A transfer student with an associate degree in a baccalaureate oriented program from a regionally accredited institution will be accepted as meeting all of the general education (General Studies) requirements of Southern Illinois University at Carbondale. The degree will not, however, waive specific academic unit or major and minor requirements which may be offered via General Studies courses. A transfer student without this degree and who expects to graduate from Southern Illinois University at Carbondale must meet the General Studies requirements. These requirements need not be completed prior to transfer but must be fulfilled to meet the general graduation requirements.

General Studies Requirements

The General Studies Curriculum for the baccalaureate degree is divided into five major areas; the requirements in each area are listed below.

Area A Man's Physical Environment and Biological Inheritance.	9
Area B Man's Social Inheritance and Social Responsibilities	9
Area C Man's Insights and Appreciations	9
Additional course work from Areas A, B, and/or C.	3
Area D Organization and Communication of Ideas.	11
Area E Human Health and Well Being.	4
Total	45

Students must complete a total of 30 semester hours in Areas A, B, and C. Within each Area they must complete a minimum of 9 semester hours, and they must include course work from at least 3 different disciplines in each Area. The remaining 3 semester hours may include coursework from any one of Areas A, B, or C, or from any combination of these three Areas.

Within Area D, the following are required: 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communication as offered in Area D. Some programs and upper division academic units have specific requirements for demonstration of competence in English composition. A student may determine which programs or units have this requirement by referring to college and school requirements listed in Chapter 4 of the University Catalog.

In Area E, the student may choose any 4 semester hours to satisfy the General Studies requirements; however, prospective teachers should also check the section in the University Catalog titled Professional Education Experiences to determine if Health Education coursework should be included in their four hours of Area E requirements.

Area A: Man's Physical Environment and Biological Inheritance (GSA)

Area Requirements. A transfer student needs a total of no less than 9 semester hours of acceptable college level work in the area of science. A minimum of three specific departments must be completed within this specific 9 hour block.

Area A Elective Section. Courses which regularly count within this area are chemistry, physics, earth science, geology, botany, zoology, biological sciences, physical sciences, physical geography, a basic course in physiology, a basic course in astronomy, a general course in microbiology. (Technical physics may also be counted in this area).

(Courses mentioned below are not listed as equivalents but will satisfy course requirements.)

SIU at Carbondale

Course Hrs

101-3	Conceptual Insights into Modern Communications Systems: From Hi-Fi Sound to Laser Beams
106-3	Chemistry for Non-Science Majors
107-1	Chemistry Lab for Non-Science Majors
110-3	Earth Science
115-3	Biology
125-3	Systems Nature of Man's World
202-3	Space Science - Astronomy
208-1	Laboratory Experiences in Physiology
209-3	Principles of Physiology
211-3	Geology of National Parks
220-3	Survival of Man
221-3	Survival of Man
230-3	Energy and the Future
240-3	Ecology and Man
302-3	Psychobiology
303-3	Ferns, Trees, and Wildflowers
312-3	Conservation of Natural Resources
313-2	Evolution
314-2	Human Heredity
321-3	Fossils: Keys to Ancient Life and Environment
322-3	Earth's Mineral Resources
323-3	Introduction to Gems and Gem Material
324-3	Water: The Friend and Enemy of Man
330-3	Weather
356-3	Creativity in Science and Technology
361-3	Acoustics of Music
399A-12	Folk Arts, Crafts, and Uses of the Environment, Expressions of Living in Southern Appalachian Region

Area B: Man's Social Inheritance and Social Responsibilities (GSB)

Area Requirements. In the area of social studies a transfer student needs no less than 9 semester hours of acceptable work in a minimum of three specific departments.

Area B Elective Section. Courses which regularly count within this area are introductory courses in sociology, psychology, economics, government, political science, global or economic geography, anthropology, American, world, or European history.

(Courses mentioned below are not listed as equivalents but will satisfy requirements).

Course Hrs

103-3	Geography of Man's Environment
104-3	Man and His World: Anthropology
105-3	The Contemporary World
109-3	Introduction to Black America
111-3	Economic Development of Western Civilization
112-3	Comparative Economic Systems
125-3	Systems: Nature of Man's World
135-3	The Third World: The African Model
160-2	Mass Communications in Society
202-3	Introduction to Psychology
203-4	The Sociological Perspective
206-3	Applied Child Development
207-3	Contemporary Political Ideologies
211-3	Contemporary Economics
212-4	Introduction to American Government and Politics
220-3	Survival of Man
221-3	Survival of Man
230-3	Emergent Societies and Alternate Life Styles
231-2	The American Educational Systems
250-3	Introduction to Comparative Government and Politics
255-2	Regional Geography of the United States
270-3	Introduction to International Relations
299c-3	The Changing World of Work
299d-2	The High Price of Food
299e-3	Values, Systems and Society
300-3	Origins of Modern America, 1492-1877
301-3	Origins of Modern America from 1877 to the Present
305-3	Personal Finance
310-1	Current Events
321-3	Socialization of the Individual
325-3	Race and Minority Relations
330-3	Language and Behavior
341-3	Marriage as a Social Institution
346-3	Consumer Choice and Behavior
378-3	Introduction to American Foreign Policy
399A-12	Folk Arts, Crafts, and Uses of the Environment. Expressions of Living in Southern Appalachian Regions

Area C: Man's Insights and Appreciations (GSC)

Area Requirements. A transfer student needs a total of no less than 9 semester hours of acceptable college level work in the area of humanities. A minimum of three specific departments must be completed within this specific 9 hour block.

Area C Elective System. Courses which regularly count within this area are in art and music appreciation, art and music history, survey courses in humanities, philosophy, oral interpretation of literature, survey literature courses such as poetry, fiction, modern literature, English and American literature.

Note: A student who has completed at least one full year of one foreign language can substitute a maximum of 4 semester hours counting as one discipline - foreign language - toward the Area C requirement.

(Courses listed below are not listed as equivalents but will satisfy course requirements.)

SIU at Carbondale

Course Hrs

100-2	Music Understanding
101-3	Introduction to Art
102-3	Problems in Philosophy
104-3	Moral Decision
107-2	Man, Leisure, and Recreation
109-3	Introduction to Black America
200-3	Oral Interpretation of Literature
201-3	Introduction to Drama
202-3	Introduction to Poetry
203-3	Introduction to Theater
204-3	Meaning in the Visual Arts
205-3	Innovation for the Contemporary Environment
206-3	Music as a Creative Experience
207-2	Aesthetics

208-3	Elementary Logic
210-3	Introduction to Fiction
212-3	Oriental Humanities
214-3	Oriental Philosophies
216-3	Types of Eastern Religion
217-3	Types of Western Religion
221-3	Survival of Man
231-3	Greek Civilization
232-3	Roman Civilization
299e-3	Values, Systems and Society
317-3	Recent American Literature
325-3	Black American Writers
330-3	Classical Mythology
335-3	The Short Story
349-3	The Cinema
363-3	Philosophy of Science
365-3	Shakespeare
371-2	Evolution of Jazz
390-3	Contemporary American Thought
393-3-6	Studies in Literature
399a-12	Folk Arts, Crafts, and Uses of the Environment. Expressions in Living in Southern Appalachian Region

Area D: Organization and Communication of Ideas (GSD)

Area Requirements. A transfer student needs a total of no less than 11 semester hours of acceptable college level work in the area of communications. Within Area D, the following are required: 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communication as offered in Area D. Some programs and upper division units have specific requirements for demonstration of competence in English composition. Students should consult the University Catalog to determine Area D requirements of the various schools and colleges at SIU.

(Courses mentioned below are not listed as equivalents but will satisfy course requirements.)

SIU at Carbondale

Course Hrs

101-3	English Composition
104-2	Grammar in Language
106-0	Elementary Algebra
107-4	Intermediate Algebra
110-2	Economic and Business Statistics
112-2	Basic Concepts of Statistics
113-2	Introduction to Mathematics
117-2	Expository Writing
118-2	Technical Report Writing
119-2	Creative Writing
120-3	Freshman Honors Composition
152-2	Interpersonal Communications
153-3	Public Communication
199a-1	Library as an Information Source

Area E: Human Health and Well-Being (GSE)

Area Requirements. A transfer student needs a total of no less than 4 semester hours of acceptable college level work in Health and/or Physical Education. A student may select any four hours, however, prospective teachers should consult College of Education requirements to determine if Health Education coursework must be included in the four hour Area E requirement.

SIU at Carbondale

Course Hrs

100-1 to 4	Restricted Physical Education
*101-1 to 14	Aquatics
102-1 to 10	Physical Fitness
*103-1 to 16	Dance
*104-1 to 34	Individual and Dual Activities
105-1 to 12	Team Activities
106-1 to 6	Martial Arts
*114-1 to 4	Intermediate Individual and Dual Activities
201-2	Healthful Living
236-2	Nutritional Ecology of Man
240-2	Human Relations Between the Sexes

*Consult University Catalog pp. 75, 76 to determine various activities.

Special Note: Veterans may qualify for Area E credit for their military experience. See section on Evaluation of Credit.

Miscellaneous

The preceding General Studies requirements are not applicable to community college transfer students who have received an associate degree within a baccalaureate oriented program. This degree will automatically satisfy all general education requirements, but will not necessarily satisfy departmental prerequisite lower division courses required of the student's major area.

Students may satisfy some General Studies requirements by making certain approved substitutions of departmental courses for specified General Studies courses.

Any student who feels qualified to take a proficiency examination is eligible to apply. Credit is given to students passing proficiency exams. Credit by proficiency cannot exceed 30 semester hours. Application for proficiency exam should be initiated at the appropriate department.

Proficiency credit granted by other regionally accredited institutions will be recognized. Special regulations apply to proficiency credit earned through the College Level Examination Program (CLEP). See section on Evaluation of Transferred Credit.

List of Approved Substitutions

The departmental courses which have been approved as substitutions for General Studies courses are listed below. In no case does the departmental course substitute for more credit hours than the credit hours allowed in the comparable General Studies course. Community colleges who have comparable courses are encouraged to submit course descriptions for departmental approval.

General Studies Course	Approved Substitutes
GSA 101-3	One of: Physics 203, 204, 205, 253, 254, 255, or 3 semester hours of technical physics. (The substitution of Physics 253, 254, or 255 is limited to one semester hour.)
GSA 106-3 and 107-1	One of: Chemistry 115, 140, 222, 224, 225 or 4 semester hours of technical chemistry
GSA 110-3	Geology 220
GSA 115-3	One of: Biology 306, 308, 309; Botany 200; Zoology 118
GSA 208-1 and 209-3	Phsl 210, AnI 331, or military credit for physiology
GSA 240-3	Biology 307
GSA 314-2	Biology 305
GSA unassigned-1 to 12	One to 12 semester hours from President's Scholars 251a and/or 351a
GSB 103-3	Geography 300
GSB 211-3	One of: Agriculture Industries 204; Economics 214, 215
GSB unassigned-1 to 12	One to 12 semester hours from President's Scholars 251b and/or 351b
GSC 100-2	Music 101 or 102 or two hours of 013, 014, 017, 020, 021, or 022
GSC 101-3	Art 100
GSC 204-3	Art 207
GSC 206-3	Music 105a
GSC Foreign Language-4	Foreign Language
(Note: A student who has completed at least one full year or the equivalent of one foreign language can substitute a maximum of 4 semester hours counting as one discipline - foreign language - toward the Area C requirement.)	
GSC unassigned-1 to 12	One to 12 semester hours from President's Scholars 251c and/or 351c
GSD 101-3	Linguistics 101
GSD 107-4	One of: Mathematics 110, 111, 116, 117, 139, 140, 150, 151, 159, 250, 259, 282, or 4 semester hours of technical mathematics
GSD 117-2	Linguistics 102
GSD 118-2	One of: Administrative Sciences 302, Linguistics 103, or 2 semester hours of technical writing
GSE 101-114-4	Four semester hours from: Physical Education 115, 116, 117, 118, 119, 120, 170
GSE unassigned-1 to 4	One to 4 semester hours from President's Scholars 251e and/or 351e

A maximum of 15 semester hours of comparable technical coursework can be substituted for General Studies requirements. Some of these substitutions are listed above; others may be possible on individual request to the Dean of General Academic Programs.

Evaluation of Transfer Credit

After a transfer student has been admitted, transfer work is evaluated in the Records Division of the Office of Admissions and Records. This evaluation covers the student's extent of satisfaction of general degree and General Studies (general education) requirements. This evaluation of transfer credit provides other information such as total hours accepted, entry status, and the like. Copies of this evaluation are mailed to the student and to the academic advisement center of the academic unit he/she will be entering. The evaluation of transfer credit may not always be available for the first advisement appointment, or it may be an incomplete evaluation if the student was initially admitted on a partial transcript while in attendance elsewhere. In this case, the student should be aware of his completed work. Transferred courses which are not General Studies courses are evaluated by the department or agency directing the specific curriculum and are not reflected on the evaluation prepared by the Records Division.

Transcripts and Test Scores

All students who have taken college level work at other institutions must have official transcripts of all work forwarded to the admissions office. An official transcript from each college or university attended must be submitted. Failure to comply with this ruling, failure to indicate all institutions attended, or incorrect information regarding status at the other institutions can result in withdrawing an admission or dismissal for the student.

Students who might qualify for advance standing must have both their ACT profile and their high school transcripts available in the General Academic Programs office. It is the student's responsibility to see that these items are submitted. Official scores of the General Examination of the College Level Examination Program (CLEP) must also be submitted for evaluation. An evaluation of CLEP will not be made from entries on another transcript. Also, credit possibilities based upon formal service-school training programs, USAFI courses, and military experience will be evaluated upon submitting required papers.

Transfer students may be admitted and their work tentatively evaluated on the basis of a partial or incomplete transcript. If the final and complete transcript is not submitted, the student will not be allowed to register for a second semester of attendance. It should be noted that it is the student's responsibility to request transcripts be sent to the Admissions Office.

NOTE: If the evaluation appears to be in error, the student and/or his advisor should contact the Office of Admissions and Records.

Status of Institution

The annual publications entitled, Report of Credit Given by Educational Institutions published by the AACRAO or Accredited Institutions of Higher Education published by ACE, are used for guidance relative to the status of institutions for credit acceptance purposes.

Regionally Accredited

If regionally accredited, credit is accepted unconditionally.

If an Illinois two-year institution with Class I status, credit is accepted unconditionally.

For students who transfer from non-baccalaureate programs in regionally accredited institutions, special regulations apply in terms of how credit will be accepted and evaluated.

Technical work in home economics, agriculture, liberal arts, sciences, and engineering and technology will be evaluated by the Office of Admissions and Records according to guidelines prescribed by the College of Human Resources, School of Agriculture, College of Liberal Arts, College of Science, and School of Engineering and Technology. In general, full credit (up to a maximum of 60 semester hours) will be accepted to count toward the hours required for the bachelor's degree. The School of Agriculture will accept only one-half of the credit towards the baccalaureate degree unless the student has obtained an associate degree and is admitted through the University's Capstone Program.

Course work in technical areas other than human resources, agriculture, liberal arts, sciences, and engineering and technology will be submitted to the dean's office for evaluation.

Transfer credit for associate degree programs in the Bachelor of Science degree program in Technical Careers is evaluated by the departmental chairman and Dean of Technical Careers.

Students who have received an associate degree in a baccalaureate oriented program from a regionally accredited two-year institution will have satisfied all General Studies (general education) requirements for the baccalaureate degree and will be granted junior standing. Students will not have necessarily met lower division departmental required prerequisite courses for their academic unit. Students transferring with less than the baccalaureate oriented associate degree will have to fulfill the University's general education requirements prior to graduation. (See section -- General Studies and the Transfer Student).

Credit accepted from a regionally accredited two-year institution is limited only by the policy that states this student must earn the last 60 semester hours from a regionally accredited four-year institution or at Southern Illinois University. Also this student must meet residency requirements. Students presenting an excessive number of hours under this ruling will not necessarily have to repeat courses but might be required to take additional hours as electives to meet general graduation requirements.

Non-Regionally Accredited

For students who transfer from non-baccalaureate programs in non-regionally accredited institutions, special regulations also apply.

Occupational work taken from a non-regionally accredited institution presented by a student with an associate degree or equivalent and with a "C" average will be evaluated as stated previously.

There is no provision for the granting of credit, except via proficiency examinations or by individual review by the academic unit the student enters, for students coming from a non-regionally accredited institution without the associate degree or equivalent or with less than a "C" average.

All accepted occupational and technical credit will be examined by the department of the student's intended major to determine its applicability toward meeting degree requirements.

Foreign Schools

All work completed at foreign schools must be evaluated through the assistant director of admissions. Work is evaluated course by course. Courses must be considered equivalent in content to courses at SIU before credit can be granted. Non-equivalent credit will be evaluated by the department under question to determine its acceptability. Students who are transferring work from universities outside the U.S.A. are advised to bring with them official and detailed descriptions of those courses.

Undergraduate applicants must submit official transcripts of records from all secondary or middle schools and all universities, colleges, or professional schools attended. Secondary school records are not required from those who have earned a bachelor's degree or the equivalent thereof and are applying to the graduate school. Records must list subjects taken each year, along with the grades or marks received. Each transcript must include a complete list of all courses taken at that institution, the number of weeks and the number of hours per week in lecture and laboratory for each subject, and the grade received. There should be included a description of the grading system of each institution attended and, if possible, a statement of the student's scholastic rank in his graduating class.

Extension, Correspondence, Pass/Fail, Advance Standing, Proficiency

Work taken by extension or correspondence at accredited institutions is accepted unconditionally toward the baccalaureate degree. No more than 30 hours may be in correspondence work. Correspondence work must carry a "C" or better.

"D" Work

Hours of "D" will be accepted under the same conditions as all other credits.

Military Experience

Credit for military experience may be granted as follows:

Service of one year or more and honorable discharge allows six semester hours including 2 in physical education, 2 in health education, and 2 in aerospace studies.

Service of six months to a year allows 2 hours in aerospace studies only.

Service of less than six months allows no credit.

Additional credit for special courses taken in service schools is sometimes possible.

If a veteran takes college course work in these areas or has previously completed work in any of the forementioned areas, his credit for military experience is reduced accordingly.

Class Standing

Class standing is determined by the number of semester hours completed as follows: freshman, less than 26; sophomore, 26 through 55; junior, 56 through 85; and senior, 86 or more.

Preparatory or Developmental Courses

Grades and credit for preparatory or developmental courses will not be used for evaluation purposes.

Repeating Courses and the G.P.A.

For both admission and evaluation purposes grades earned in repeated course work will be averaged.

The University does not calculate an entering transfer grade point average; rather, a transfer's GPA is based solely on work taken at this University.

INSTRUCTIONAL UNITS/PROGRAMS

General Studies
Pre-professional Programs
School of Agriculture
College of Business and Administration
College of Communications and Fine Arts
College of Education
School of Engineering and Technology
College of Human Resources
School of Law
School of Medicine
College of Liberal Arts
College of Science
Recommended Programs
School of Technical Careers

PREPROFESSIONAL PROGRAMS

A program of study called preprofessional does not lead to a degree at SIU-C. Preprofessional students who will be on campus longer than two years should enroll as double majors and enter the college which grants a degree in the second major. Students without an additional major will be enrolled in the College of Liberal Arts (prelaw and pretheology majors), College of General Studies (nursing majors), or College of Science (other health career majors). Preprofessional programs are available in the following areas:

Dentistry (3 or 4 years)	Optometry (2 to 4 years)
Law (3 or 4 years)	Pharmacy (1 or 2 years)
Medical Technology (2 or 3 Years)	Physical Therapy (2 to 3 years)
Medicine (including Osteopathic) (3 or 4 years)	Podiatry (2 to 4 years)*
Nursing (2 years)	Theology (2 to 4 years)
	Veterinary Medicine (3 or 4 years)

In addition to these preprofessional programs, the University offers professional curricula in dentistry (Edwardsville), engineering, law, medicine, and nursing (Edwardsville).

Preprofessional students may, subject to certain conditions, obtain a bachelor's degree after three years of work (90 semester hours) at SIU-C plus one or more years of work in a professional school. During the three years at SIU-C, the students must complete all requirements (other than elective hours) for the particular bachelor's degrees they are seeking.

In some cases students may complete requirements for a major at the professional school, but this is permitted only upon the prior approval of the appropriate divisional head. Also, there needs to be completion of at least one year of professional work with acceptable grades in an accredited dental, law, medical, osteopathic medical, or veterinary school, or medical technology training laboratory.

In all cases, SIU-C graduation requirements must be met. Students must make the decision to seek a bachelor's degree before entering the professional school so that questions can be clarified early.

Students should be aware that the Career Planning and Placement Center schedules aptitude and/or admission tests for some professions; preregistration is necessary for these tests.

*Recommended program not listed.

GENERAL ACADEMIC PROGRAMS

General Studies

The general education requirements at SIU-C are satisfied through the General Studies program.

The student is required to have a total of 45 hours in the five areas of General Studies. There is considerable flexibility in the program and the transfer student should have little difficulty in meeting the General Studies requirements.

A student who graduates with an associate degree in a baccalaureate-oriented program from a Class I Illinois two-year institution, or one regionally accredited, is considered to have met the General Studies requirements.

Pre-Major Advisement Center

Pre-Major Advisement is the academic home for all students who wish to explore one, two, or several major fields before choosing their career goals. The Pre-Major Advisement Center provides each student with an experienced academic adviser who knows the requirements for all major programs and who will offer assistance in selecting an appropriate course of study.

President's Scholar Program

The President's Scholar Program is designed to enable academically talented students to profit from an association with each other; to achieve maximum flexibility within the framework of the general University curriculum; and to take fullest advantage of the talents and resources in the University. The President's Degree Program, an option available to students interested in pursuing interdisciplinary studies, is also important for maximizing curricular flexibility.

Inquiries about the program should be addressed to the director, Special Programs, General Academic Programs.

Special Major

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suited to their special requirements.

University Studies Program

The University Studies Program provides the student with another option for earning a baccalaureate degree. The program is intended for the student who wants a broad, general education and does not wish to specialize on the undergraduate level. In fact, the program was proposed to serve the many students who express the desire to receive a degree, but whose interests are so varied as to preclude a major in a traditional discipline. The student who is approved to pursue a degree in University Studies can outline his own curriculum with few restrictions.

Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies degree program should consult with the director of Special Programs, General Academic Programs for more information prior to entrance into the program.

Center for Basic Skills

The Center for Basic Skills is designed to enhance the success factor for students deficient in basic skills but who demonstrate the potential for college work and to offer services to students interested in improving their reading, writing and/or mathematics skills. The Center offers courses in the basic skill areas of reading, writing, and mathematics. It also offers individualized instruction and tutoring in these areas. Diagnostic testing is available to assist students in analyzing their basic skills competency. Interested students should direct their inquiries to the Director of the Center for Basic Skills.

Special Supportive Services

Fredrick Hamilton, Director

This program is designed for students with academic potential who are from indigent, culturally and economically disadvantaged backgrounds and provides an academic support system that will maximize their success. The identification process focuses on modified admissions criteria that emphasize motivation and requires a personal interview to be admitted. The specialized services offered through this program include but are not limited to providing: (1) personal and career counseling and guidance; (2) curricular and instructional methods in special classes that will enable the participants to complete required and prerequisite courses in a reasonable period of time; (3) a comprehensive tutorial program that will afford program participants an opportunity to compete with sufficient skills at Southern Illinois University at Carbondale; and (4) other special services that are consistent with the goal of recruiting, retaining, and graduating the target population.

Eligible participants must be citizens of the United States and conform economically to federal low-income standards unless they are physically handicapped or speak limited English.

SCHOOL OF AGRICULTURE

Majors in the School of Agriculture at SIU-C have a new look! Traditionally agriculture majors were almost exclusively farm-reared boys, but the current agricultural student body is not limited to persons from farms nor to men. Urban youth who are concerned about ecology, about improving the environment, about increasingly imminent world-wide food shortage also find relevance and meaningfulness in curricula in agriculture and forestry. Also, women, from both rural and urban backgrounds, are joining the agriculture and forestry student ranks in rapidly increasing numbers, being 67% more numerous in the current year than they were just one year ago. Women and other minority-group graduates enjoy very favorable employment opportunities in agriculture.

The curricula of the four departments of the School of Agriculture which are presented on the following pages provide opportunity for students with a wide range of interests and abilities in various combinations of the physical, biological, and social sciences to learn to apply these basic sciences in helping to solve food, fiber, environmental and ecological problems--whether these problems are found in the local community, state or nation or in an international or global context. Persons trained in agriculture are needed and they can serve mankind as they satisfy themselves. The spectrum of career opportunities for agriculture graduates ranges from the rural producer, through the many processing and distributing occupations to those who provide services to the agricultural industry.

FACILITIES: The offices, classrooms and laboratories of the School of Agriculture are located in the Agriculture Building. Additional SIU-owned facilities which are devoted to teaching and research in the School of Agriculture include nearly 2000 acres of farm and timber land, 15,575 square feet of greenhouse space, and a special center devoted to each of six species of livestock.

ACCREDITATION: North Central Association of Colleges and Secondary Schools.

DEGREE OFFERED: Bachelor of Science.

MEMBERSHIP: National Association of State Universities and Land-Grant Colleges.

GRADUATE PROGRAMS: The School of Agriculture has programs leading toward the Master of Science degree. Many of the programs are mentioned in this section, but there are additional options, available only at the graduate level. For more information consult with School of Agriculture, the Graduate School, or the Graduate Catalog.

ORGANIZATIONS: Scholastic and Professional Honoraries; Alpha Zeta (agriculture), Pi Alpha Xi (floriculture and ornamental horticulture) and Xi Sigma Pi (forestry). Special Interests; Alpha Gamma Rho Chapter. Departmental; Agriculture Economics Club, Agriculture Industries Graduate Student Club, Agriculture Student Advisory Council, Block and Bridle Club, Forestry Club, Plant and Soil Science Club, Society of American Foresters Student Club, Dairy, Horticulture, Livestock, Poultry, and Soil Judging Teams, and Collegiate FFA.

TRANSFER STUDENTS: If agriculture is offered for transfer credit at a regionally accredited associate-degree-granting college, introductory courses in the various fields may be accepted at SIU in lieu of equivalent courses. Also approximately one-half of the credit for occupational and technical courses may be accepted to apply as free electives or agricultural electives. For transfer students wishing to pursue a concentration in one of the agricultural or forestry areas, courses prior to entering SIU should include physical and biological sciences, social sciences, and humanities. In addition, a course in speech and appropriate sequences in English composition and college algebra should be included. All majors within the School of Agriculture must have work in: Mathematics; botany or zoology or biology; chemistry; economics; and speech.

Graduates of occupational oriented programs should inquire into the possibilities of entering the School of Agriculture under the Capstone Project. This special program is explained in another section of this handbook.

FOR FURTHER INFORMATION:

Chief Academic Advisor
School of Agriculture
Phone 618-453-2469

Chairman of (state major)
School of Agriculture

Admissions Office
Woody Hall
Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

COLLEGE OF BUSINESS & ADMINISTRATION

The College of Business & Administration, located in the General Classroom Building, aims to prepare students to perform successfully in business and other organizations functioning within a changing social, economic, and political environment. Study provides the student with fundamental principles and practices of organizational behavior and allows the mastering of knowledge and skills for effective management. The curriculum provides a broad base for understanding business while simultaneously allowing in-depth study within an area of concentration. Students find that the professional education they receive in the college is desired by business, governmental units, and other public institutions. The advanced curriculum, computer terminals, and intern programs provide students not only with a meaningful education but with a means of relating that education to organizations and commerce.

ACCREDITATION: American Assembly of Collegiate Schools of Business (AACBS), and North Central Association of Colleges and Secondary Schools.

DEGREE OFFERED: Bachelor of Science.

Accounting	Marketing
Administrative Science	General Marketing Administration
Management Systems	International Marketing
Organizational Behavior	Industrial Marketing
Personnel Management	Sales Administration
Production - Operations Management	Promotional Administration
Business and Administration	Physical Distribution
Business Economics	Retail Administration
Finance	
Financial Management	
Financial Institutions	

GRADUATE PROGRAM: The College of Business & Administration offers the Master of Business Administration (M.B.A.) degree.

ORGANIZATIONS: Scholastic and Professional Honoraries: Alpha Kappa Psi (Business), Beta Alpha Psi (Accounting), Beta Gamma Sigma (Business), Phi Gamma Nu (Business), Pi Sigma Epsilon (Marketing), and the Society for Advancement of Management (SAM) and American Marketing Association (AMA).

Departmental: Concerned Professional Accountants, American Marketing Association, College of Business & Administration Student Council.

SPECIAL MAJOR: A student who feels that his special interests and/or needs cannot be met by any of the existing College of Business & Administration or University majors may participate in designing his own program under the Special Concentration major. The student's program, which must be approved by the Dean of the College of Business & Administration and the President's Office, should be coherent and unified and must have as a sponsor a member of the teaching faculty of the College of Business & Administration. Approval of such a program does not exempt a student from University requirements. Forty to sixty percent of the course work must be devoted to courses with a College of Business & Administration prefix; the remainder, to courses carrying non-business-prefixes.

For further information, contact the Assistant Dean, Undergraduate Programs, College of Business & Administration.

TRANSFER STUDENTS: The College of Business & Administration will accept college level credit earned in business and economics courses from any accredited two- or four-year institution toward the 120 semester hours required for graduation. However, if such courses are offered at the lower division (freshman and sophomore) level at the institution where taken, only courses shown below will be accepted as substitutions for College-required courses.

<u>Courses</u>	<u>Semester Hours</u>
Principles of accounting	6.0
Cost accounting	3.0
Economic principles	6.0
Business/economic statistics	3.0
(where college algebra is a prerequisite)	
Basic computer course ¹	3.0

Additionally, up to 6.0 semester hours of business law completed at the lower division level are acceptable in satisfaction of department requirements, in those programs where these courses are required. Nothing in this statement abridges a student's right to satisfy graduation requirements by proficiency examination.

¹Computer coursework completed at other universities and colleges will be accepted as transfer credit for the College of Business and Administration core computer requirement if that course is designed to teach one and only one of the following languages: Fortran, Basic, Cobal, RPG, PLI, and Algol; courses that survey numerous languages are not acceptable. Further, coursework with emphasis on unit record or data processing equipment will not be considered equivalent to the college's computing requirement. Acceptable coursework should have a one-language base and present the student with advanced programming concepts, e.g., loops, arrays, etc.

SCHOOL OF ENGINEERING AND TECHNOLOGY

The curricula in the School of Engineering and Technology are designed to provide instruction and to stimulate research in a broad portion of the technology spectrum. Attention is given to theories and their applications, and to creative and practical aspects, in varying degrees, commensurate with the objectives of the particular program.

Offices and most facilities of the School of Engineering and Technology are centered in the engineering and technology complex by the Lake-on-the-Campus.

ACCREDITATION: North Central Association of Colleges and Secondary Schools, Engineers' Council for Professional Development (ECPD) (Engineering), Engineers' Council for Professional Development (ECPD) (Engineering Technology), National Association of Industrial Technology (Industrial Technology).

DEGREES OFFERED: Bachelor of Science - Engineering
Bachelor of Science - Engineering Technology
Bachelor of Science - Industrial Technology

GRADUATE PROGRAMS: Master's degree work is available in a number of specialties in engineering. For specific information concerning advanced degree work a student should consult the School of Engineering and Technology, the Graduate School and the Graduate Catalog.

ORGANIZATIONS: Organizations in which students in the School of Engineering and Technology may participate include the Engineering Club (a student chapter of the Illinois Society of Professional Engineers), and the Society of Manufacturing Engineering (a student chapter of S.M.E.). Engineering students with high scholastic achievement may be recognized through invitation for membership to the SIU chapter of Tau Beta Pi, a national engineering honor society.

TRANSFER STUDENTS: Students should note that the minimum mathematics requirement for baccalaureate degrees in the School of Engineering and Technology will vary, depending upon the curriculum followed. Prospective transfer students should study the following pages carefully.

Students planning to transfer occupational credit toward a degree in industrial technology should consult with the Department of Technology concerning the applicability of such credit toward meeting degree requirements.

Graduates of occupationally oriented programs should inquire into the possibilities of entering the School of Engineering and Technology under the Capstone Project. Requirements of this special program are mentioned in another section of this handbook.

FOR FURTHER INFORMATION:

Dean	Admissions Office
School of Engineering and Technology	Woody Hall
Phone 618-453-4321	Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

COLLEGE OF COMMUNICATIONS AND FINE ARTS

The College of Communication and Fine Arts offers the following majors leading to the Bachelor of Science degree:

Journalism	Speech
Cinema and Photography	Speech Pathology and Audiology
Radio and Television	Theater

The Bachelor of Arts degree is offered for a major in the School of Art. The Bachelor of Music degree is offered for a major in the School of Music.

In the communications fields listed above a "C" average in GSD 101 English composition or an approved equivalent is required.

Students interested in studio or studio crafts concentration in the School of Art should consult the Chief Academic Advisor for the School of Art for eligibility requirements for those specializations.

COLLEGE OF EDUCATION

Preparation of teachers of all subjects taught in the public schools from pre-school through high school is the special function of the College of Education. In its graduate offerings, however, it broadens its efforts to include professional work for prospective college teachers and several specializations in school administration and supervision.

The College of Education, housed in the Wham Education Building, is the oldest unit of the University, which was originally chartered as Southern Illinois Normal University.

TEACHER EDUCATION PROGRAM APPROVAL. Each of the Specializations in teacher education noted in this Counselor's Handbook has continuing approval from the Illinois State Teacher Certification Board.

ACCREDITATION. North Central Association of Colleges and Secondary Schools, the National Council for Accreditation of Teacher Education, and the United States Office of Education.

DEGREES OFFERED. Bachelor of Science, Bachelor of Music Education.

GRADUATE PROGRAMS. Students can continue on the graduate level of the above programs and in some areas not listed. For more specific information a student should consult with the College of Education and the Graduate School, and read the Graduate Catalog.

ORGANIZATIONS. Scholastic and Professional Honoraries: Kappa Delta Pi, Phi Delta Kappa, and Pi Lambda Theta. Departmental: Association of Childhood Education, Council for Exceptional Children, Men's P. E. majors, Recreation Club, Student Education Association, Women in Education, Women's Professional P. E., and Women's Recreation Association.

TRANSFER STUDENTS. Students preparing to teach should become aware of all the specific requirements and prerequisites involved in teacher certification. Also admission to the University or to an academic unit does not admit a student to the formal Teacher Education Program (see Transfer Admissions-Eligibility).

Students wanting to transfer occupational credit into the College of Education should consult the department to determine possible applicability of this credit toward meeting degree requirements.

FOR FURTHER INFORMATION:

Chief Academic Advisor
College of Education
Phone 618-536-2329

Admissions Office
Woody Hall
Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

SECONDARY EDUCATION

The Department of Curriculum, Instruction and Media, which includes the programmatic area of secondary education offers courses which lead to certification for teaching in the junior high school, the middle school, and the high school. Students pursuing careers in secondary school teaching at any of these levels, upon admission to the Teacher Education Program of the College of Education, may elect to enroll in courses in the following areas: Reading; Middle-Junior High School; Student Activities; Simulation and Gaming; Advanced Teaching Methodologies; Problems Related to Teaching the Disadvantaged; and Methods Courses in the Natural Sciences, Social Studies, and Reading. Additionally, students may elect to pursue independent reading and/or research in topical areas relevant to their teaching interests. Members of the Department teach many of the courses in the Professional Education Sequence required of students in the Teacher Education Program.

Prospective teachers may elect to concentrate in the individual subjects, or combination thereof, typically taught in the secondary schools. These areas are listed below according to academic major. Students interested in careers in secondary school teaching may contact the Advisement Section of the College of Education or the Chairman of the Department of Curriculum, Instruction and Media.

Students preparing to teach in junior high school or high school may select academic majors and minors from the following:

Teaching Area	Major	Minor ²
Agricultural Education.	X	
Art	X	
Biological Sciences	X	X
Black American Studies.		X
Botany ¹	X	X
Business Teacher Education.	X	X
Chemistry	X	X
Earth Science		X
Economics	X	X
English	X	X
Foreign Languages	X	X
Geography	X	X
Health Education ³	X	
History	X	X
Home Economics Education.	X	
Instructional Materials		X
Journalism.	X	X
Language Arts and Social Studies.	X	
Mathematics	X	X
Microbiology.		X
Music	X	X
Occupational Education.	X	
Philosophy.		X
Political Science	X	X
Physical Education.	X	
Physics	X	X
Physiology.		X
Psychology.		X
Social Studies.	X	
Sociology		X
Speech.	X	X
Theater		X
Zoology ¹	X	X

¹A student with a major in botany or zoology should have a minor in the other in order to meet certification standards for teaching biology at the high school level.

²All minors used for certification purposes must include a minimum of 18 semester hours.

³Driver Education is offered for teacher certification purposes in the Department of Health Education.

See the Undergraduate Catalog for specific requirements concerning admission to the Teacher Education Program and for specific requirements concerning teacher certification.

Chief Academic Advisor: College of Education
Telephone - 618-536-2329
Location - Wham Building, Room 108

COLLEGE OF SCIENCE

The College of Science offers majors, and in most cases minors, leading to the Bachelor of Arts and Bachelor of Science degrees in the following fields of study:

Biological Sciences	Mathematics
Botany	Microbiology
Chemistry	Physics
Engineering Biophysics	Physiology
Geology	Zoology

A minor in Earth Sciences is also offered.

Pre-professional programs are also offered in the following areas:

Dentistry	Pharmacy
Medical Technology	Physical Therapy
Medicine	Veterinary Medicine

Academic Requirements:

None of these general academic requirements may be satisfied by taking the required courses on a Pass/Fail grading basis.

BIOLOGICAL SCIENCES: Six semester hours in courses offered by the biological sciences departments in the College with the proviso that this requirement cannot be satisfied in whole or in part by General Studies courses, but may be substituted for the latter in meeting the General Studies requirements.

FOREIGN LANGUAGE: The foreign language requirement can be met by one of the following: (a) passing an 8-hour, 100-level sequence in one language; (b) earning 8 hours of 100-level credit in one language by proficiency examination; or (c) completing three years of one language in high school with no grade lower than C.

A student whose native language is not English may use the native language to satisfy part or all of the science foreign language requirement at Southern Illinois University at Carbondale. If the language is presently taught at SIU-C, no credit is given, but partial or full satisfaction of the science foreign language requirement may be granted if the student's major department so recommends. A student whose native language is English but who has learned another language not taught at SIU-C may qualify without credit for partial or or full satisfaction of the science foreign language requirement under certain circumstances, including formal recommendation by the student's major department and availability of an examiner and examination materials within the Department of Foreign Languages and Literatures. For information, the student should consult the College of Science advisement center.

MATHEMATICS: The mathematics requirement can be met by (a) passing Mathematics 110a,b (3,2) or Mathematics 111 (5) or its equivalent or Mathematics 140 (4), or (b) completing three years of high school mathematics with no grade lower than C and achieving a score on the University's Mathematics Placement Test which allows the student to enroll directly into Mathematics 150 (4).

PHYSICAL SCIENCES: At least 40 hours of the student's 120 hours for graduation must be at the 300 or 400 level. The total may include transfer credit for courses judged by the department involved to be equivalent to its upper division courses. For transfer students submitting only the last year in residence, at least 24 of these must be at the 300 or 400 level.

GENERAL REQUIREMENTS: At least 40 hours of the 120 must be at the 300 or 400 level.

For transfer students submitting only the last year in residence, at least 24 of these must be at the 300 or 400 level.

COLLEGE OF HUMAN RESOURCES

The College of Human Resources offers the following majors leading to the Bachelor of Science degree:

Administration of Justice	Food and Nutrition
Child and Family	Interior Design
Clothing and Textiles	Social Welfare
Family Economics and Management	

No specific unit requirements. Consult degree programs in catalog and handbook for specific degree requirements.

SCHOOL OF LAW

In response to the need for an additional legal education resource within the state, the Illinois Board of Higher Education's Master Plan Phase III, issued in May, 1971, recommended establishment of a law school with an enrollment of approximately 300 students at Carbondale. An appropriation for this purpose was passed by the Illinois legislature in June, 1972. The University promptly employed a dean, and the school admitted its first class in the fall of 1973.

The school offers a three-year program leading to the Juris Doctor (J.D.) degree. The school has received provisional accreditation from the Section on Legal Education of the American Bar Association during its first year of operation, so that all students enrolled will be eligible to take state bar examinations required for admission to the bar.

Two buildings have been remodeled to provide classroom, library, and office space for the School of Law pending completion of a permanent building. Other available facilities include an adequate law library collection and a broadly-based University with extensive law-related graduate divisions and other academic units. Because of space limitations, the entering class in 1974 will be limited to approximately 80 students.

The faculty and student body of the school are of the highest quality, and its curriculum is designed to inculcate fundamental legal concepts and skills which every lawyer must have and which are the hallmarks of the profession of the law. In addition to the Socratic - casebook method, other teaching methods, including clinical, are utilized as the subject matter requires. The School of Law catalog can be obtained by writing to University Graphics. Information on admission to the SIU Law School can be obtained by writing to:

Dean Hiram Lesar
School of Law
Southern Illinois University
Carbondale, Illinois 62901

NOTE: Information on Undergraduate preparation necessary for schools of law listed under Pre-law in this text.

SCHOOL OF MEDICINE

Southern Illinois University School of Medicine was established in 1970 in response to a need in Illinois for increased opportunities for education in the health fields and the more encompassing need for improvements in the health care delivery system. To have the broadest impact possible on health care in central and southern Illinois, the school is deeply engaged in training men and women who will become physicians; it emphasizes continuing education; and it is a center of health care planning and expertise.

The curriculum runs twelve months a year for three years. The first year program, conducted on the campus of Southern Illinois University at Carbondale, has primarily a laboratory or pre-clinical orientation, but with significant clinical input from the beginning. The second year, at Springfield, is about equally divided between laboratory and clinic; and the third year, also at Springfield, is almost exclusively clinical.

Available facilities include the extensive and well-equipped laboratories of Southern Illinois University at Carbondale; the public and private clinical facilities of Carbondale; and St. John's Hospital and Memorial Hospital in Springfield, each of about 700 beds. A new medical school building in Springfield is scheduled for completion in 1974 in time for the first class transferring from Carbondale. Inquiries on admissions should be addressed to:

Dean Richard H. Moy, Dean
Committee on Admissions
Southern Illinois University School of Medicine
P. O. Box 3926
Springfield, Illinois 62708

NOTE: Information on Undergraduate preparation necessary for schools of medicine listed under pre-medicine in this text.

COLLEGE OF LIBERAL ARTS

The College of Liberal Arts offers the following majors leading to the Bachelor of Arts and Bachelor of Science degrees. Minors are possible in most of these areas. For exceptions, see next chapter.

African Studies ¹	Classical Studies	Linguistics
Anthropology ¹	East Asian Civilizations ¹	Mathematics
Asian Studies ¹	French	Music
Comparative Literature ¹	German	Philosophy
Computer Science	Japanese ¹	Political Science
Earth Science ¹	Latin ¹	Psychology
Economics	Russian	Religious Studies
English	Spanish	Sociology
Foreign Languages	Geography	Speech ²
and Literatures	History	Theater ²
Chinese ¹	Latin-American Studies	Uncommon Languages ¹
Greek		

¹Minor Only.

²Liberal Arts major, not professional major.

College Requirements Effective Summer, 1976

Students beginning college anywhere Summer 1976 must satisfy the following requirements:

1. University requirements including those relating to General Studies, residency, total hours, and grade point average.
2. Successful completion of requirements in an approved major in the College of Liberal Arts.
3. At least 40 hours of course work at the 300- or 400-level.
4. In addition to General Studies requirements in English and mathematics, students must complete two courses, or a minimum of six semester hours, in a basic communication skill in either the mathematical sciences (mathematics, statistics, computer science), a foreign language, or English composition. General Studies courses may be used to satisfy this requirement only with the prior approval of the dean. Courses taught in the department of the student's major field of study may not be used to satisfy this requirement.

College Requirements Effective Fall, 1978

Students beginning college anywhere Fall 1978 must satisfy the following requirements:

1. University requirements including those relating to General Studies, residency, total hours, and grade point average.
2. Successful completion of requirements in an approved major in the College of Liberal Arts.
3. At least 40 hours of course work at the 300- or 400- level.
4. The Liberal Arts student must complete one year or not less than six semester hours of a foreign language. In addition to General Studies requirements, he must complete one course in either mathematics or computer science and one course in English composition. General Studies courses may be used to satisfy the latter requirement only with prior approval of the dean.

Students should consult with an advisor at an early stage in their college career regarding any problems related to these requirements. Similarly, those planning to attend schools of law, health-related fields, or other professions must plan their curriculum carefully, with courses of depth and rigor, and should be in close contact with their advisors at frequent intervals.

RECOMMENDED PROGRAM

ACCOUNTING
College of Business
& Administration

Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information. Such information is required and used by parties external to the business and by management within the business.

The curriculum is designed to prepare a student to assume a professional position as a certified public accountant or to join the management team in industry and government. The courses provide a basic understanding of all phases of accounting and permit the student to elect courses to prepare for a particular area of interest.

The Department of Accountancy has a working relationship with several national public accounting firms with whom the department arranges for student work experience during the spring semester of their senior year. Students work off campus in the field of accounting under the direction of the cooperating public accounting firms. While most of the work assignments are in the St. Louis and Chicago areas, some student have been assigned, at their request, in other geographical districts as far away as New Jersey and Texas. The student receives valuable work experience, a salary, and three hours of university credit under the internship program. Interns are selected by the Department.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	6
GSC	Humanities (select) ¹	6	3
GSD 101 & Writing	English Composition	3	2
*Math 116-5 or 139-3	Finite Mathematics & Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics & Calculus	-	4 (5)
		<u>15 (17)</u>	<u>15 (16)</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*Acct 221, 222	Financial Accounting	3	3
*ADSC 208	Business & Economic Statistics	4	-
*CS 202 or EDP 217	PL-1 or Fortran Programming	-	3
*Econ 214, 215	Economics, Macro, Micro ²	3	3
*GSB 202	Introduction to Psychology	3	-
*GSD 153 or 152	Speech	2 (3)	-
GSE	Physical & Health Education ¹	-	2
GS- ---	General Studies Electives	-	4
		<u>15 (16)</u>	<u>15</u>

*Required course for a major in Accounting.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Econ 214 or 215 count toward GSB credit.

Accounting As A Major

Neither minor or foreign language required.

Graduate degree available: MBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

A 2.000 grade point average is required in SIU-C accounting courses for graduation.

Dr. Jackson White

Department Telephone - 618-453-2289

Location - General Classrooms Building, Room 232

RECOMMENDED PROGRAM

ADMINISTRATION OF JUSTICE
College of Human Resources
(Bachelor of Science)

The Bachelor of Science degree with a major in Administration of Justice meets the career objectives of students interested in law enforcement, corrections, juvenile services and other roles in social and criminal justice.

Four areas of concentration--Law Enforcement, Correctional Program Services, Correctional Management, and Juvenile Justice and Delinquency Prevention--have been delineated to give a range of choices suitable for most students preparing for careers in a field of criminal justice. The policy of this Center, however, is to fit course requirements to the given student's career objectives if none of these concentrations are appropriate. In such situations, the student will be required to take the core courses, and, under the supervision of his or her advisor, develop an appropriate battery of courses in lieu of one of the four areas of concentration.

Field internship placement is an important element in the Administration of Justice program and internships are encouraged for qualified students.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Sciences (select) ¹	-	3
GSB 202	Introduction to Psychology	3	-
GSB 203	Sociological Perspectives	4	-
GSB 212	Political Science	4	-
AJ 200	Introduction to Criminal Behavior*	-	3
GSC 102 or 104	Problems of Moral Decisions	-	3
GSE	Human Health and Well Being (select) ¹	1	1
GSD 152 or 153	Speech	-	2
GSD 101	English Composition	3	-
GSD 107	Math (Statistics suggested)	-	4
or 112 and 113		15	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
AJ 201	Introduction to Criminal Justice System*	3	-
GSC	Humanities (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GSA	Sciences (select) ¹	3	-
GSA	Sciences (select) ¹	-	3
GSD 118	Technical Report Writing	2	-
GSE	Human Health and Well Being (select) ¹	1	1
AJ	Class from AJ Core or AJ Concentration	-	3
GSA/B/C	Elective	3	-
Elective	Free Elective	-	3
AJ	Class from AJ Core or AJ Concentration	-	3
		15	16

*Required courses for a major in Administration of Justice.

¹To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Studies. The specific general studies courses listed are highly recommended, not a requirement of the Administration of Justice Department.

The preceding 2-year outline can be altered to meet the needs and abilities of the students.

Third and Fourth Year

The last two years of a student's program concentrate on specific career or professional objectives. The student must take the Division Requirement of 15 semester hours plus meet the requirements of a chosen concentration from the following: Law Enforcement, Juvenile Justice and Delinquency Prevention, Correctional Program Services, Correctional Management or a concentration specifically designed and agreed upon with the student's faculty advisor to meet the career objectives of the student.

Administration of Justice As A Major

Graduate Degree program available.

No foreign language requirement.

A minor (secondary concentration) is required and is selected in consultation with the student's academic advisor. The student selects 18 hours of courses constituting a systematic sphere of study relevant to his or her interests and needs.

Multi-disciplinary staff with backgrounds in Sociology, Psychology, Education, Law and Rehabilitation provide instruction. Most of the staff also have practical experience in the Criminal Justice System.

Outstanding faculty, nationally recognized program, guest speakers, special programs, international emphasis, and career oriented experience available.

Lawrence A Bennett - Divisional Executive Officer

Telephone - 618-453-5701

Location - Faner Building, 4th Floor

RECOMMENDED PROGRAM

ADMINISTRATIVE SCIENCES College of Business & Administration

Undergraduate students in the Department of Administrative Sciences may select one of five areas of specialization which lead to the Bachelor of Science degree in business administration. Each program of study emphasizes the structure of decision making in the administrative process.

The specialized areas in which a student can choose a course of study are: management systems, production management, organizational behavior, or personnel administration. Each of these areas is designed to familiarize the student with current tools and practices that can be applied in organization decision making and provide practice for the student in their application.

Integrated with classroom instruction are various courses which afford both undergraduate and graduate students an opportunity to observe or participate in research or study of ongoing projects in different fields of administrative practice. The instructional plans of the department include greater employment of experientially based instruction by use of laboratory courses or inter-practicum experiences.

The field of administrative sciences promises to undergo considerable growth in the years ahead, therefore, the demand for well qualified people is almost without limit. Trained graduates can obtain employment in public utilities, recreation, rehabilitation, health, transportation, and higher education. These positions are at all levels of administration.

Students frequently combine training in another specialty field with a program in administrative sciences in order to prepare themselves to assume managerial responsibility. While most graduates enter positions in business, many find administrative careers in such fields as aviation, corrections, agriculture, recreation, food services, health, government, and higher education.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	6
GSC	Humanities (select) ¹	6	3
GSD 101 & Writing	English Composition	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus	-	4 (5)
		15 (17)	15 (16)
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*Acct 221, 222	Financial Accounting	3	3
*ADSC 208	Business and Economic Statistics	4	-
*CS 202 or EDP 217	Fortran Programming	-	3
*Econ 214, 215	Economics, Macro and Micro ²	3	3
*GSB 202	Introduction to Psychology	3	-
*GSD 153 or 152	Speech	2 (3)	-
GSE	Physical and Health Education ¹	-	2
GS- ---	General Studies Electives	-	4
		15 (16)	15

*Required course for a major in Administrative Sciences.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Econ 214 or 215 count toward GSB credit.

Administrative Sciences As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

The Society for the Advancement of Management in cooperation with the Department of Administrative Sciences sponsors annually Career Day to acquaint students with opportunities in business and government.

Dr. Robert Bussom - Chairman

Department Telephone - 618-453-3307

Location - General Classrooms Building, Room 215

RECOMMENDED PROGRAM

AGRICULTURE (GENERAL)
 School of Agriculture

General Agriculture is intended for those students who are seeking broad backgrounds in agriculture. It is the major of greatest flexibility within the School of Agriculture and is probably the best major for students who have not chosen a professional area for emphasis. Many agriculture students are graduated with a major in General Agriculture. Some students start as General Agriculture majors, later identify an area in which they want to specialize and transfer to the appropriate major for that specialty. Other students start in one of the specialized areas and later decide to transfer to and be graduated from General Agriculture. Possible specializations within the General Agriculture major include: Environmental Studies, Foreign Agriculture, and Country Living.

Students in this major gain basic preparation for many of the agricultural careers: general farming, agricultural services, agricultural extension, agricultural communication, agricultural business, agricultural industry and agricultural production.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 106 ¹	Chemistry	-	3
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select)	-	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119 ³	Writing (select one)	-	2
GSD 107	Mathematics	4	-
GSE	Health and Physical Development (select)	1	1
AgI 204 ⁴	Introduction to Agricultural Economics	-	3
AnI 121 and 122	Animal Science	4	-
Bot 200 ⁵	Botany	-	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA, B or C	Elective (select)	-	3
GSB	Social Studies (select)	3	-
GSC	Humanities (select)	3	3
GSD 153	Speech	-	2
GSE	Health and Physical Development (select)	-	2
PLSS 240	Soil Science	4	-
PLSS 220 or 200	Horticulture or Field Crops	-	3
Zoo 118 ⁵	Zoology	3	-
	Electives	<u>3</u>	<u>3</u>
		<u>16</u>	<u>16</u>

¹A student with background and interest in chemistry is recommended to take a higher level of chemistry.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³The three courses are Expository Writing, Technical Report Writing and Creative Writing. The student selects one to meet his interests and career objectives.

⁴Agriculture Industries 204 substitutes for GSB 211 (Contemporary Economics) as well as counting as hours toward the major.

⁵Botany 200 and Zoology 118 substitute for GSA requirements.

Agriculture As A Major

Major requirements include a minimum of 8 semester hours of courses in each of the three departments: Agricultural Industries, Animal Industries, Plant and Soil Science; plus additional elective courses in agriculture or forestry to complete a total of 40 semester hours.

No minor required; no foreign language required.

Dr. William A. Doerr - Chief Academic Advisor
 Department Telephone - 618-453-2469

RECOMMENDED PROGRAM

AGRICULTURAL EDUCATION
(Vocational)
School of Agriculture

Completion of a four-year course of study in agricultural education leads to certification as a teacher of agricultural occupations. Men and women students have the opportunity to specialize in one of the following areas: agriculture business, agriculture mechanization, ornamental horticulture, plant production, soil conservation, parks and recreation, forestry, conservation, or animal production.

Employment opportunities for agricultural education majors are excellent not only as teachers in high schools and community colleges, but the breadth of training also provides educational background needed for adult training programs provided by high schools, colleges, extension service, and industry. Many foreign agricultural positions are open to persons with this training. This curriculum also provides the educational background sought by many agribusiness firms for sales and management training positions.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 115	Biology	3	-
GSA 106	Chemistry ¹	-	3
GSB	Social Studies ²	3	-
GSC	Humanities ²	-	3
GSD 101	English Composition	3	-
GSD 107	College Mathematics ⁴	-	4
GSE	Health Course	1	2
AgI 204	Introduction to Agricultural Economics ³	3	-
PLSS 200	Principles of Field Crop Production	3	-
AnI 121	Animal Science	-	3
AnI 122	Animal Science (Lab)	-	1
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science ²	3	-
GSB 202	Psychology	3	-
GSB	Social Studies ¹ (A course in American History or Government)	-	3
GSC	Humanities ²	-	3
GSD 153	Oral Communications	3	-
GSE	Health and Physical Development ²	1	-
AnI 215	Introduction to Animal Nutrition	2	-
PLSS 240	Soil Science	-	4
Agriculture	Agricultural electives ⁵	<u>3</u>	<u>5</u>
		<u>15</u>	<u>15</u>

Third and Fourth Years

The last two years of a student's program concentrates on specific professional objectives and electives.

¹A student with background and interest in Chemistry is recommended to take a higher level of Chemistry.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³AgI 204 can be substituted for GSB 211a (Introductory Economics) or vice versa.

⁴College Algebra recommended.

⁵Student should consult with agriculture counselor regarding options available for agriculture electives.

Important - see requirements for entrance into Formal Teacher Education Program.

Agricultural Education As A Major

A transfer student should be aware of the requirements for entering the Formal Teacher Education Programs. The Formal Teacher Education Program is explained in this text - see directory.

A student may select one of eight agricultural speciality options for major emphasis. Information about these specialties may be secured from the department.

No minor required. No foreign language required. Approximate class size 30. Masters degree available in Agricultural Education. Methods and student teaching will be stressed junior and senior years. Courses in both the School of Agriculture and the College of Education are included.

Dr. Eugene Wood-Chairman/Department Telephone-618-453-2421/Location-Agriculture Bldg, Rm. 226

RECOMMENDED PROGRAM

AGRICULTURAL INDUSTRIES
(Agricultural Economics/
Agri-Business)¹
School of Agriculture

The Agricultural Economics/Agri-business curriculum is designed to prepare women and men for attractive careers in agriculture, industries that are related to agriculture, or to continue their professional development by entering graduate school. A few career opportunities include farm credit positions with banks, farm management, grain elevator operations, livestock buying and selling, farm supplies, research, public relations, and extension work.

In agricultural economics/agri-business, courses are offered in the areas of farm management, agri-business management, farm credit, agricultural prices, agricultural marketing, cooperatives, and agricultural policy.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 106	Chemistry	-	3
GSA	Physical Sciences ²	3	-
GSB	Social Science ²	-	3
GSC	Humanities ²	-	3
*GSD 101	English Composition	3	-
*GSD 107	Basic College Math ³	4	-
GSE	Health and Physical Development ²	1	1
*AgI 204	Introduction to Agricultural Economics ⁴	3	-
AnI	Animal Science	-	3
PLSS	Plant and Soil Science	-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Introductory Biology	3	-
GSB	Social Studies ²	3	-
GSC	Humanities ²	3	3
GSD 110	Economic and Business Statistics	-	2
*GSD 118	Technical Report Writing	2	-
*GSD 153	Public Communication ⁵	-	2
GSE	Health and Physical Development ²	1	2
*Econ 214, 215	Economics - Macro, Micro	3	3
*AgI 360	Coops and Agri-business Management	-	3
		<u>15</u>	<u>15</u>

Third and Fourth Years

The last two years of the agricultural economics/agri-business curriculum are devoted to advanced courses in agricultural economics, agri-business, economics and business to meet the goals and objectives of the study. About 20 hours of free electives are included in the last two years of this curriculum.

*Required courses for a major in Agricultural Economics/Agri-business.

¹There are two options available under the economics specialization: (a) 40 hours in agriculture which provides a broad training in agriculture or (b) 32 hours in agriculture which allows a secondary concentration in either economics or business.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Mathematics 110A,B or 111 (College Algebra and Trigonometry) are highly recommended.

⁴AgI 204 can be substituted for GSB 211 (Introductory Economics).

⁵GSD 152 may be substituted.

Two courses in Accounting is desirable.

Agricultural Industries (Agricultural Economics/Agri-business) As A Major

No minor required. No foreign language required. Internships are encouraged for the summer semesters. Masters degree available in Agricultural Economics and Ag Services. Class size 20-50; senior year 15-30. Department is sponsor for special workshops on campus. Students attending junior colleges without an agricultural program can easily complete an Agricultural Economics/Agri-business major in two years.

Dr. Eugene Wood - Chairman
Department Telephone - 618-453-2421
Location - Agriculture Building, Room 226

RECOMMENDED PROGRAM

AGRICULTURAL INDUSTRIES
(Agricultural Mechanization)
School of Agriculture

The Agricultural Industries curriculum with a specialization in agricultural mechanization is designed to prepare individuals for attractive careers in agriculture and related businesses, in industries that are related to agriculture, or to continue their professional development by entering graduate school. A few career opportunities include farm management careers, grain elevator operations, farm supply sales, public relations, operational positions in the processing industry, power use advisors with electric power supplying agencies and companies, selling field testing farm equipment and product education positions, and service representatives for the various power and machinery companies. Due to the extensive mechanization and technology in agriculture and the related industries employment opportunities are excellent.

Courses in agricultural mechanization are offered in construction and repair processes; agricultural power and machinery; agricultural electrification; agricultural buildings and structures; soil and water conservation; and agricultural materials processing, handling, and storage.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Biology	3	-
GSA	Science ¹	3	-
*GSB 204	Introduction to Ag Economics	-	3
GSB	Social Studies ¹	-	3
GSC	Humanities ¹	3	3
*GSD 101	English Composition	-	3
GSE	Health and Physical Development ¹	2	2
*AnI 121	Animal Science	3	-
*AnI 122	Animal Science (Lab)	1	-
*PLSS 200	Field Crop Production	-	3
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 101	Physics	-	3
*GSA 106	Chemistry	3	-
GSB	Social Studies ¹	3	-
GSC	Humanities ¹	-	3
*GSD 107	Algebra ²	5	-
GSD 118	Technical Report Writing	-	2
GSD 153	Speech	-	2
*Acct 210	Basic Accounting	-	3
*AgI 376	Applied Graphics	2	-
*AgI 377	Surveying	2	-
*AgI 378	Shop Processes	3	-
*AgI 379	Basic Mechanics	-	3
		<u>17</u>	<u>16</u>

Third and Fourth Years

The last two years of the individual's program concentrate on work that best leads the individual toward his professional goals. The individual will complete 55 semester hours in agriculture of which 27 hours are in agricultural mechanization and 28 semester hours of approved free electives. Elective courses may be taken in agriculture or supporting areas.

*Required or strongly recommended courses for agricultural mechanization majors.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²GSD 107 (Intermediate Algebra) is a minimum requirement. Math 110a-3 and 110b-2 (College Algebra and Trigonometry) are strongly recommended.

Agricultural Industries (Agricultural Mechanization) As A Major

Individuals do not need to have an agricultural background to enter the agricultural mechanization program.

Internships are encouraged for the summer terms. No minor required. No foreign language required. Masters degree available. Class size 20-50; senior year 15-30. Department sponsors special workshops on campus.

Dr. Eugene Wood - Chairman
Department Telephone - 618-453-2421
Location - Agriculture Building, Room 226

RECOMMENDED PROGRAM

ANIMAL INDUSTRIES
School of Agriculture

Introduction, research, demonstration, and/or consultation are provided in dairy, horse, livestock and poultry production, animal behavior, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management.

The student has the opportunity to select courses in other areas of agriculture or related fields, such as business, biology, or physical sciences. This selection allows the student to include in his studies the agronomic, agricultural economic, and agricultural engineering phases of agriculture, pre-veterinary medicine, or business as related to animal production.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Substitute for GSA 115	4	
GSB	Social Studies	3	3
GSC	Humanities	-	3
GSD 101	English Composition	3	-
GSD	English Composition (one of 117, 118, or 119)	-	2
GSD 107	Intermediate Algebra or 4 hours from 113 and either 110 or 112	-	4
GSE	Health and Physical Development	1	1
AN.I. 121	Science of Animals	3	-
AN.I. 122	Production and Processing Practices of the Animal Industry	1	-
AN.I. 211	Anatomy, Growth, and Development	-	2
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
AN.I. 331	Functions of Animal Systems	3	-
GSB	Social Studies	-	3
GSC	Humanities	3	3
GSD 153	Speech	-	3
Chem 140a	Chemistry (Inorganic) ¹	4	-
Chem 140b	Chemistry (Organic and Biochemistry)	-	4
AN.I. 215	Animal Nutrition	2	-
AN.I. 315	Feeds and Feeding	-	3
GSE	Health and Physical Development	2	-
		<u>14</u>	<u>16</u>

Third and Fourth Years

Courses during the last two years of a student's program concentrate on requirements, electives in Animal Industries, other departments in the School of Agriculture as well as free electives.

¹Substitutes for GSA Chemistry.

Animal Industries As A Major

Many students work at the various livestock centers and the laboratories to help defray the cost of education as well as to gain valuable experience. An intern course also enables a student to work in special areas (away from campus) and receive credit. Graduates are prepared for employment in many phases of animal agriculture. The department maintains close contact with the industry and assists in placing graduates in permanent positions.

No minor required. No foreign language required. Most of teaching staff have advanced degrees (Ph.D.). Graduate programs are available. Class size 20-6-; senior year 10-30.

Dr. H. H. Hodson - Chairman
Department Telephone - 618-453-2320
Location - Room 127, Agriculture Building

RECOMMENDED PROGRAM

ANIMAL INDUSTRIES

(Science and Pre-Veterinary
Medicine Option)
School of Agriculture

Introduction, research, demonstration, and/or consultation are provided in dairy, horse, livestock and poultry production, animal behavior, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management.

The student has the opportunity to select courses in other areas of agriculture or related fields, such as business, biology, or physical sciences. This selection allows the student to include in his studies the agronomic, agricultural economic, and agricultural business as related to animal production.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies	-	3
Biology	(core suggested)	4	4
GSD 101	English Composition	3	-
GSD	English Composition (one of 117, 118, or 119)	-	2
GSE	Health and Physical Development	1-2	1-2
AN.I. 121	Science of Animals	3	-
AN.I. 122	Production and Processing Practices of Animal Industry	1	-
AN.I. 211	Anatomy, Growth and Development	-	2
Math 110a,b	College Algebra and Trigonometry ¹	3	2
		<u>15-16</u>	<u>14-15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies	3	3
GSC	Humanities	-	3
AN.I. 331	Functions of Animal Systems	3	-
Chem 222a,b	Chemical Principles ²	4	4
Phys 203a,b	College Physics ³	3	3
Phys 253a,b	Physics Lab	1	1
AN.I. 215	Animal Nutrition	2	-
AN.I. 315	Feeds and Feeding	-	3
		<u>16</u>	<u>17</u>

Third and Fourth Years

In addition to completing General Studies Requirements and Chemistry, courses during the last two years of a student's program concentrate on requirements and electives in Animal Industries, other departments in the School of Agriculture as well as free electives.

¹Substitutes for GSD 107 (Math).

²Substitutes for GSA 106 (Chem).

³Substitutes for GSA 101 (Physics)

Animal Industries As A Major

Many students work at the various livestock centers and the laboratories to help defray the cost of education as well as to gain valuable experience. An intern course also enables a student to work in special areas (away from campus) and receives credit. Graduates are prepared for employment in many phases of animal agriculture. The department maintains close contact with the industry and assists in placing graduates in permanent position.

No minor required. No foreign language required. Most of teaching staff have advanced degrees (Ph.D.). Graduate programs are available. Class size 20-60; senior year 10-30.

Dr. H. H. Hodson - Chairman
Department Telephone - 618-453-2320
Location - Room 127, Agriculture Building

RECOMMENDED PROGRAM

ANTHROPOLOGY

College of Liberal Arts
(Bachelor of Arts)

Faculty members have had field experience in North, South and Central America, the Caribbean, Europe, Africa, Australia and the Pacific. Faculty specialization and field experience in the Greater Southwest, Mesoamerica, Midwest and New Guinea are particularly strong.

With an advanced degree an Anthropologist will typically find employment with museums, foundations, junior colleges, universities and many government programs.

The Anthropology major consists of 32 semester hours, to include Anthropology 300A, 300B, 300C and 300D which introduce the main subfields of the discipline. The remaining 20 hours are to be selected in consultation with the student's advisor, with half of these recommended to be at the 400 level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 104	Anthropology ²	3	-
GSB	Social Science (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD	English Composition ¹ and one of 117, 118, or 119	3	2
GSD	Math (select) ¹	2	-
GSD 112	Statistics	-	2
GSE	Health and Physical Development (select) ¹	-	2
		<u>14</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Science (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GSD	Speech (select) ¹	2	-
FL ³		4	4
GSE	Health and Physical Development (select) ¹	2	-
Elective ⁴		<u>4</u>	<u>4</u>
		<u>15</u>	<u>14</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, see the section, General Studies for the Transfer Student.

²Does not count in the 32 hour Anthropology major requirement.

³Students intending to pursue a graduate education should realize that a foreign language would likely be required for graduate school admission; for these students two years of foreign language is recommended.

⁴Elective hours should be used in the following ways: 1) Students may explore areas of interest; 2) and they may select courses to satisfy Liberal Arts requirements.

Anthropology As A Major

When possible, transfer students should contact the department prior to their first quarter of attendance.

The program in anthropology covers all the major divisions of anthropology, viz. archaeology, physical anthropology, ethnography, linguistics, and socio-cultural anthropology. Although there are no specific course requirements beyond the four introductory courses, students are urged to take at least one course in each of the following subjects: applied anthropology, archaeology, art and technology, ethnology, history of anthropology, linguistics, physical anthropology, and socio-cultural anthropology. The student who contemplates going on to graduate work in the field is advised to take a broadly based curriculum, in order to increase his chances of admission to a graduate program. He is also advised to gain a reading knowledge of one of the foreign languages containing substantial anthropological literature, e.g. French, German, Russian, Spanish, and to obtain elementary knowledge of statistics and/or computer science.

Dr. George Gumerman - Chairman
Department Telephone - 618-536-6651
Location - Faner 3525

RECOMMENDED PROGRAM

ART

(Drawing)
 (Painting)
 (Printmaking)
 (Sculpture)
 (Ceramics, Metalsmithing, Weaving)
 (General Studio)
 College of Communications and
 Fine Arts

Undergraduate offerings in art provide introductory and specialized experiences. The courses of study offered, leading toward the Bachelor of Arts degree in art, require 51 hours of art in art education, 58 hours of art in art history, 52 hours of art in general studio, and 72 hours of art in all other specializations.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	3	-
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Alternate (select) ¹	-	2
GSD	Mathematics (select) ¹	4	-
GSE	Health and Physical Development (select) ¹	1	1
Art 100	Basic Studio	4	4
Art 200	Beginning Drawing	-	2
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSE	Health and Physical Development	1	1
Art 201	Beginning Painting	2	-
Art 203	Beginning Sculpture	-	2
Art	Electives	4	4
		<u>16</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

Third and Fourth Years

The student will primarily satisfy remaining departmental requirements and utilize the freedom in selection of elective courses to achieve the desired specialization.

Art As A Major

Graduate degree available.

The department is staffed by a faculty of artist-teachers, many of whom have national reputations resulting from their participation in major exhibitions and invitational shows throughout the country. There is also an Artist-in-Residence program which annually invites internationally known artists to teach, exhibit, and lecture. The student can expect to receive excellent training in all of the applied and theoretical branches of art.

A student who expects to elect the studio or the studio-crafts specialization must have the approval of the faculty of the Department of Art. His past work will be evaluated and he must give evidence of the necessary level of competence to pursue this program. Students who do not meet this criterion may elect the specialization in art education or art history-aesthetics in the School of Fine Arts.

Milton Sullivan - Director
 Departmental Telephone - 618-453-2571
 Departmental Location - Allyn Building

RECOMMENDED PROGRAM

ART EDUCATION¹
 School of Art
 College of Communications and
 Fine Arts

In addition to teaching art in elementary and secondary schools, art majors are employed in museums, private art schools, college art departments, and art galleries. Electives, courses outside of degree requirements, are provided so that the student may encounter additional areas of concern beyond his concentration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select) ²	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select) ²	-	2
GSD 153	Public Communication	-	2
GSE 201	Healthful Living	2	-
GSE	Health and Physical Development	-	1
ART 100a	Basic Studio	4	-
ART 100b	Basic Studio	-	4
ED 201	Teacher's Role in Public School Education	-	1
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB 212 or B300	American Government or U.S. History 1492-1877 (select) ³	-	3
GSB	Social Studies (select) ²	3	-
GSC	Lit Course (select) ²	3	-
GSD	Math (select) ²	-	4
GSE	Health and Physical Development (select) ²	1	-
ART	Studio	4	4
ART 107		2	-
ART 207		-	4
		<u>16</u>	<u>15</u>

¹See also Art in the College of Education

²Refer to section General Studies for the Transfer Student.

³Courses required for certificate include GSC 212 or B300, GSD 101, GSD 117, 118, or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, and one additional English course from GSC, GSD or department.

Art Education As A Major

A student interested in the major should become aware of the requirements for entrance into the Formal Teacher Education Program.

Milton Sullivan - Director
 Departmental Telephone - 618-453-2571
 Department Location - Barracks 0839

Dr. Harold DeWeese - Chief Academic Advisor for College of Education
 Telephone - 618-536-2329
 Location - Wham Building, Room 108

RECOMMENDED PROGRAM

ART EDUCATION¹ School of Art College of Education

In addition to teaching art in elementary and secondary schools, art majors are employed in museums, private art schools, college art departments, and art galleries. Electives, courses outside of degree requirements, are provided so that the student may encounter additional areas of concern beyond his concentration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select) ²	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select) ²	-	2
GSD 153	Public Communication	-	2
GSE 201	Healthful Living ³	2	-
GSE	Health and Physical Development	-	1
ART 100a	Basic Studio	4	-
ART 100b	Basic Studio	-	4
ED 201	Teacher's Role in Public School Education ⁴	-	1
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB 212 or 300	American Government or U.S. History 1492-1877 (select) ³	-	3
GSB 202	Introduction to Psychology ³	3	-
GSC	Lit Course (select) ²	3	-
GSD	Math (select) ²	-	4
GSE	Health and Physical Development (select) ²	1	-
ART	Studio	4	4
ART 107		2	-
ART 207		-	4
		<u>16</u>	<u>18</u>

¹See also Art in Communications and Fine Arts.

²Refer to section General Studies for the Transfer Student.

³Course required for certification include GSB 202, GSB 212 or 300, GSD 101, GSD 117, 118, or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, and one additional English course from GSC, GSD or department.

Art Education As A Major

A student interested in the major should become aware of the requirements for entrance into the Formal Teacher Education Program.

Milton Sullivan - Director
Departmental Telephone - 618-453-2571
Department Location - Barracks 0839

Chief Academic Advisor for College of Education
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

ART HISTORY
 School of Art
 College of Communications and
 Fine Arts

Undergraduate offerings in art provide introductory and specialized experiences. The courses of study offered, leading toward the Bachelor of Arts degree in art, require 51 hours of art in art education, 58 hours of art in art history, 52 hours of art in general studio, and 72 hours of art in all other specializations.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	-	3
*GSC 207	Aesthetics	2	-
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Alternate (select) ¹	-	2
GSD	Mathematics (select) ¹	4	-
GSE	Health and Physical Development (select) ¹	1	1
*Art 107	Fundamentals of Art	2	-
*Art 207	Survey of Art History	-	4
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSE	Health and Physical Development	1	-
Art	Art Studio	2	2
*Art 307	Ancient Art	-	3
*ForLang	French or German	4	4
		<u>16</u>	<u>18</u>

¹Refer to section General Studies for the Transfer Student.

*Departmental requirements for Art History.

Third and Fourth Years

The student will primarily satisfy remaining departmental requirements and utilize the freedom in selection of elective courses to achieve the desired specialization.

Art As A Major

Graduate degree available.

The department is staffed by a faculty of artist-teachers, many of whom have national reputations resulting from their participation in major exhibitions and invitational shows throughout the country. There is also an Artist-in-Residence program which annually invites internationally known artists to teach, exhibit, and lecture. The student can expect to receive excellent training in all of the applied and theoretical branches of art.

Milton Sullivan - Director
 Departmental Telephone - 618-453-2571
 Departmental Location - Allyn Building

RECOMMENDED PROGRAM

BIOLOGICAL SCIENCE¹
College of Education

This curriculum is designed to give the student a broad, yet intensive, education in the biological sciences preparatory for various professions, especially the teaching of biology at the secondary level. The work may be taken in either the College of Science or the College of Education. The science requirement for this concentration is the same in both colleges.

The biological sciences curriculum consists of courses selected from General Studies Area A and the Departments of Botany, Microbiology, Physiology, and Zoology. A student selecting biological sciences as his concentration does not need to take a secondary concentration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 208	Lab Experience in Physiology	-	1
GSA 209	Principles of Physiology	-	3
GSC	Humanities (select) ²	-	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select) ²	-	2
GSE 201	Healthful Living	2	-
*Bot 200	General Botany	3	-
*Bot 201	General Botany Lab	1	-
*Chem 224	Introduction to Chemical Principles	-	5
*Chem 225	Introduction to Lab Techniques	-	2
Educ 201	Teacher's Role in Public School Education	-	1
*Math 111	College Algebra and Trigonometry	5	-
		14	17
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 212	Introduction to American Government & Politics	4	-
GSC	English elective in Humanities	-	3
GSC	Humanities (select) ²	3	-
GSD 153	Public Communication	-	2
GSE	Physical Education	1	1
*Biol 305 or 307	Genetics or Environmental Biology	3	-
Zool 12a,b	Introduction to Invertebrate & Vertebrate Zoology	4	4
GSB 202	Introduction to Psychology	-	3
GSB	Social Studies (select) ²	-	3
		15	16

*Approved substitutes for General Studies.

¹See also the program under the College of Science.

²Refer to the section General Studies for the Transfer Student.

It is recommended that the following courses be completed during the first two years of the students study: Zoology 120a,b; Botany 200, 201, 204, 205; Chemistry 224, 225.

Foreign Language is not required for students pursuing the Bachelor of Science in Education degree.

For specific major requirements see the Undergraduate Catalog.

Biological Science As A Major

To include the following required courses: GSB 202, Introduction to Psychology; GSA 208, Laboratory Experiences in Physiology; GSA 209, Principles of Philosophy; GSB 212, Introduction to American Government and Politics OR GSB 300, History of the United States 1492 to 1877; GSD 101, English Composition; GSD 117, Expository Writing or GSD 118, Technical Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental); Mathematics 110a,b or 111.

Chief Academic Advisor

College of Education

Telephone - 618-536-2329

Location - Wham Building, Room 108

RECOMMENDED PROGRAM

BIOLOGICAL SCIENCES
College of Science¹
(Bachelor of Arts)

This curriculum is designed to give the student a broad, yet intensive, education in the biological sciences preparatory for various professions, especially the teaching of biology at the secondary level. The work may be taken in either the College of Science or the College of Education. The science requirement for this concentration is the same in both colleges.

The biological sciences curriculum consists of courses selected from General Studies Area A and the Departments of Botany, Microbiology, Physiology, and Zoology. A student selecting biological sciences as his concentration does not need to take a secondary concentration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
*FL	Foreign Language	4	4
*Math 110a,b	College Algebra and Trigonometry ^{3,4}	3	2
*Zoology 220a,b	Invertebrate, Vertebrate Zoology	4	4
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select) ²	-	3
GSE	Human Health (select) ²	-	1
		<u>17</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 153	Public Communication	2	-
*Botany 200, 201	General Botany	4	-
*Botany 204, 205	Plant Diversity	-	4
*Chem 224, 225	Introductory Chemistry ⁴	7	-
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	-	2
GSE	Human Health and Well Being	-	3
GSA 208, 209	Physiology (Lecture, Lab)	-	4
		<u>16</u>	<u>16</u>

Third and Fourth Year

The last two years of a student's program should include completion of 3 additional hours in GSA, GSB, or GSC, Chemistry 340, and the following courses in biological sciences: Microbiology 301, 302 (7 hours), any two of Biology 305, Biology 306, Biology 307, Biology 308, or Biology 309 (6 hours), and any two electives in biological sciences at the 400 level, for 7 hours.

*Required courses for a major in Biological Sciences.

¹See also the program (B.S.) under the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Math 111 substitutes for Math 110a,b.

⁴Students in the College of Science must take one year of foreign language, one year of math, and 1 year of chemistry.

Biological Sciences As A Major

Although advanced work (M.A. or Ph.D.) has become a basis for professional preparation in the biological sciences, many technician type jobs exist in industry for people who cannot immediately pursue graduate study--or who do not care to do so. Pharmaceutical houses, chemical companies and laboratories of all types constantly require such personnel. Large medical centers actively recruit the undergraduate degree holder and women frequently find favorable research and service oriented positions. In addition, all industrial firms selling chemicals or biologicals have continuous openings for sales and management trainees with general science backgrounds.

No minor required.

Chief Academic Advisor, College of Science
Department Telephone - 618-536-5537
Location - Neckers Building

RECOMMENDED PROGRAM

BLACK AMERICAN STUDIES
 Division of Social and
 Community Services
 College of Human Resources

Knowledge of the Black experience is essential for our pluralized society. Such knowledge is not automatically acquired through being Black or through being exposed to Blacks. But rather, it is acquired through a systematic body of knowledge such as that which is available through the Black American Studies (BAS) Program at Southern Illinois University-Carbondale. Information acquired through Black American Studies history, psychology, literature, music, etc. courses is especially beneficial to students whose chosen careers in some way involve Black people. Since this is true of most careers, it is to each student's advantage to take courses that will develop the skills that will increase his job opportunities.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 109	Introduction to Black America ²	3	-
GSB	Social Science (select) ¹	-	3
GSC 135	Third World: The African Model	3	3
GSD 101	English Composition	3	-
GSD	English Composition (select one from D 117, 118, 119) ¹	-	2
GSD (Math)	107-4 for 4 hours from 113-2 and either 110-2 or 112-2	4	-
GSE	Health and Physical Development (select) ¹	1	1
*BAS 209	Introduction to Black Studies	-	3
		<u>17</u>	<u>15</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Science (select) ¹	3	3
GSC 371	Evolution of Jazz ²	2	-
GSC 325	Black American Writers ²	-	3
GSD	Speech or alternate GSD Oral Communications	2	-
GSE	Health and Physical Development	-	2
*BAS 370	Bibliography of BAS	3	-
Elective		<u>6</u>	<u>4</u>
		<u>16</u>	<u>15</u>

Third and Fourth Years

The last two years of a student's program concentrate on the professional objectives that he has chosen to pursue within the Black American Studies Special Major Program.

*Required courses for a BAS minor.

¹To determine what courses may be taken to satisfy the general educational requirements for this program, please refer to the section General Studies.

²These courses will count towards a BAS major and minor requirements as well as General Studies.

Black American Studies As A Special Major (See Special Programs)

Through Black American Studies, a student may obtain a 32 hour special major which he, along with a Black American Studies advisor, develops in accordance with his own individual needs and aspirations. Students interested in education, for example, may develop special majors around Black American History and Literature. Others who are interested in human service areas such as Social Welfare and Crime and Corrections may find Black American Studies Sociology courses to be relevant. Then there are those students who may choose to explore a variety of Black American Studies courses with the intention of specializing on the graduate level. Regardless of a student's interests, whether it lies in education, business, human service areas, industry or Black American Studies per se, a background in Black American Studies is needed and useful.

A wide variety of Black American Studies courses are available from the Behavioral and Social Sciences as well as the Creative & Performing Arts.

Dr. Walter G. Robinson, Jr. - Coordinator
 Telephone - 618-453-2339
 Location - Old Baptist Foundation Building

RECOMMENDED PROGRAM

BOTANY¹
College of Education

Botany is a broad science that includes many specialties. For example, a person who has a quantitative turn of mind and enjoys mathematics or chemistry might find genetics or bio-chemistry exciting, whereas a person who has always enjoyed outdoor activity might be attracted to systematic botany or ecology. Plant Morphology might appeal to a person who enjoys observation and interpretation, but plant physiology might have more appeal for a person who prefers experimentation. The exact courses that should be selected by a student who wishes to prepare for a career in botany or for graduate study will vary somewhat depending upon the area of plant science in which he intends to specialize.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 212	Introduction to American Government & Politics	-	4
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing	-	2
*Math 111	College Algebra and Trigonometry	5	-
GSE 201	Healthful Living	2	-
GSE	Physical Education (select) ²	1	-
**Bot 200	General Botany	3	-
**Bot 201	General Botany Lab	1	-
**Chem 224	Introduction to Chemical Principles	-	5
**Chem 225	Introduction to Lab Techniques	-	2
**Bot 204	Botany - Plant Diversity	-	3
**Bot 205	Botany - Plant Diversity Lab	-	1
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	-	3
GSB	Social Studies (select) ²	3	-
GSC	English elective in Humanities (select) ²	3	-
GSC	Humanities (select) ²	3	3
GSD 152 or 153	Speech	-	2
GSE	Physical Development (select) ²	-	1
ED 201	Teacher's Role in Public School Education	-	1
Chem 340	Survey of Organic Chemistry	4	-
Chem 341	Organic Chemistry Lab	2	-
Bot requirements		-	6
		<u>15</u>	<u>16</u>

*Approved substitute for GSD math.

**Approved substitutes for GSA.

¹Should have a minor in Zoology. See also the program under the College of Science.

²Refer to the section General Studies for the Transfer Student.

³For specific major requirements see the Undergraduate Catalog.

⁴Foreign language is not required for students pursuing the Bachelor of Science in Education degree.

⁵The following major requirements should be completed during the student's first two years of study: Botany 200, 201, 204, 205; Chemistry 224, 225, 340; Botany 304, 307.

Botany As A Major

To include the following required courses: GBS 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300, History of the United States 1492 to 1877; GSD 101, English Composition; GSD 117, Expository Writing or GSD 118, Technical Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; Mathematics 110a,b, College Algebra and Trigonometry; one additional English course (GSC, GSD, or departmental).

Chief Academic Advisor
College of Education
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

BOTANY

College of Science
(Bachelor of Arts)

Botany is a broad science that includes many specialities. For example, a person who has a quantitative turn of mind and enjoys mathematics or chemistry might find genetics or bio-chemistry exciting, whereas a person who has always enjoyed outdoor activity might be attracted to systematic botany or ecology. Plant Morphology might appeal to a person who enjoys observation and interpretation, but plant physiology might have more appeal for a person who prefers experimentation. The exact courses that should be selected by a student who wishes to prepare for a career in botany or for graduate study will vary somewhat depending upon the area of plant science in which he intends to specialize.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
*FL	Foreign Language	4	4
*Math 110a,b	College Algebra and Trigonometry ³	3	2
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select) ²	-	3
GSE	Human Health (select) ²	-	1
*Botany 200, 201	General Botany	4	-
*Botany 204, 205	Plant Diversity	-	4
		<u>17</u>	<u>16</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 153	Public Communication	2	-
*Chem 224, 225	Introductory Chemistry	7	-
GSB	Social Studies (select) ²	3	3
GSC	Humanities (select) ²	-	3
GSE	Human Health and Well Being	1	2
*Botany 304	Plant Classification	3	-
*Biology 307	Environmental Biology	-	3
Botany	Elective	-	4
		<u>16</u>	<u>15</u>

Third and Fourth Year

The last two years of a student's program should include completion of 3 additional hours in GSA, GSB, or GSC, Biology 305, and the following courses in botany: Botany 320 (4 hours), Botany 337 (2 hours), and any two botany electives at the 400 level for 7 hours.

*Required courses for a major in Botany.

¹See also the program under the College of Education (Bachelor of Science).

²To determine what courses may be taken to satisfy this program, please refer to the section, General Studies for the Transfer Student.

³Students in the College of Science must take one year of foreign language, one year of math, and one year of chemistry.

Botany As A Major

As a general rule, a student who intends to apply for admission to a graduate school for study for an advanced degree in botany should include the following in his undergraduate program: inorganic and organic chemistry, mathematics through calculus, a modern European language, and as many botany and biology courses as time and scheduling will permit.

An honors program is available to those juniors and seniors in botany who have an overall grade point average of 3.00 or better and an average in botany courses of 3.25 or better. The honors student should enroll in Botany 492 during some semester of both his junior and senior year for a total of no fewer than three semester hours.

Dr. John Voight - Departmental Advisor
Department Telephone - 618-536-2331
Location - Life Science II, Room 479

RECOMMENDED PROGRAM

BUSINESS AND ADMINISTRATION
College of Business
& Administration

The Bachelor of Science degree program with a major in Business and Administration is intended for those students with personal and professional goals which entail a blending of course work offered by the College of Business and Administration with a secondary concentration comprised of course work offered by other schools and colleges of the university. This combining of interests--business with an outside field--can result in a unique program. For example, a student with international business interests can combine business and administration with foreign languages; a student interested in going into the restaurant business can combine course work in food and nutrition with business and administration. The outside field (or secondary concentration) must be consistent with a specific career objective or personal development plan and at least 15 semester hours must be structured to achieve this objective. Individual programs are subject to the approval of the Dean of the College of Business and Administration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	6
GSC	Humanities (select) ¹	6	3
GSD 101 & Writing	English Composition	3	2
*Math 116-5 or 139-3	Finite Mathematics & Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics & Calculus	-	4 (5)
		15 (17)	15 (16)
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*Acct 221, 222	Financial Accounting	3	3
*ADSC 208	Business & Economic Statistics	4	-
*CS 212 or EDP 217	PL-1 or Fortran Programming	-	3
*Econ 214, 215	Economics, Macro, Micro ²	3	3
*GSB 202	Introduction to Psychology	3	-
*GSD 153 or 152	Speech	2 (3)	-
GSE	Physical & Health Education	-	2
GS- ---	General Studies Elective	-	4
		15 (16)	15

*Required courses for a major in Business and Administration.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Econ 214 or 215 count toward GSB credit.

Business And Administration As A Major

Secondary concentration required; foreign language not required.

Graduate degree available: MBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Mr. C. E. Rosenbarger
 Department Telephone - 618-453-5250
 Location - General Classroom Building, Room 113

RECOMMENDED PROGRAM

BUSINESS ECONOMICS College of Business & Administration

The Business Economics major offered through the College of Business and Administration emphasizes the application of economic concepts and the use of critical analysis to the solution of economic and managerial problems.

This undergraduate program is an excellent general preparation for future managerial and staff assignments in a variety of business and public organizations. The program also prepares students for graduate study in economics as well as for the Master in Business Administration (MBA) degree.

Those students who desire professional careers as business and managerial economists are advised to plan to complete one to four years of post graduate study.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	6
GSC	Humanities (select) ¹	6	3
GSD 101 & Writing	English Composition	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus	-	4 (5)
		<u>15 (17)</u>	<u>15 (16)</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*Acct 221, 222	Financial Accounting	3	3
*ADSC 208	Business and Economic Statistics	4	-
*CS 212 or EDP 217	Fortran Programming	-	3
*Econ 214, 215	Economics, Macro and Micro ²	3	3
*GSB 202	Introduction to Psychology	3	-
*GSD 153 or 152	Speech	2 (3)	-
GSE	Physical and Health Education ¹	-	2
GS- ---	General Studies Electives	-	4
		<u>15 (16)</u>	<u>15</u>

*Required course for a major in Business Economics.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Econ 214 or 215 count toward GSB credit.

Business Economics As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Mr. C. E. Rosenbarger, Assistant Dean

Department Telephone - 618-453-5250

Location - General Classrooms Building, Room 113

RECOMMENDED PROGRAM

BUSINESS TEACHER EDUCATION
College of Education

Students admitted to the Undergraduate Teacher Education program in Business Teacher Education must prepare to teach in four, preferably five, of the following areas: typewriting; shorthand and transcription; bookkeeping, accounting and record keeping; general (basic) business and consumer education; office practice and machines; business law; distributive education; data processing.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select one)	-	2
GSD 107	Mathematics	4	-
GSD 152 or 153	Speech or Public Communications	-	2
GSE	Health and Physical Development	1	1
ED 201	Teacher's Role in Public School Education	-	1
ADSC 170	Introduction to Business Administration	-	3
		<u>14</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 211	Contemporary Economics	3	-
GSB 212 or 300	American Government or History of U.S.	-	3
GSC	English Elective in Humanities (select) ¹	3	-
GSE 201	Healthful Living	2	-
ED 301	Human Growth, Development, and Learning	-	2
Bus Ed 203	Advanced Typewriting	2	-
Bus Ed 241	Duplicating and Transcribing Machines	-	1
Bus Ed 316	Communication in Business	-	2
Acct 221	Accounting I	3	-
Bus Ed 317	Introduction to Data Processing	-	3
		<u>16</u>	<u>14</u>

¹Refer to the section General Studies for the Transfer Student.

²For specific major requirements see the Undergraduate Catalog.

Business Teacher Education As A Major

Students should include the following required courses taught via General Studies: GSB 202, Introduction to Psychology; GSB 211, GSC 211, Contemporary Economics; GSB 212, Introduction to American Government and Politics, or GSB 300, History of the United States from 1492 to 1877; GSD 101, English Composition; GSD 117, 118, or 119, Expository, Technical or Creative Writing; GSD 153 Public Communication; GSE 100-114, 2 hours, Physical Education Activities; GSE 201, Healthful Living; one additional English course (GSE, GSD, or Departmental required).

Major Core Requirements: Accounting 221, Administrative Science 170 or Finance 305, Economics 214 or GSB 211 (see above), Marketing 304, Business Education 316, 317 and Secretarial and Office Specialties 101 a and b.

Requirements for major specializations: Specialization sequence courses: Typewriting sequence, BE 201, 202, 203, 351; Shorthand-transcription sequence, BE 221, 222, 223, 224, 352; Bookkeeping-accounting sequence, ACCT 221, 222, BE 355.

Professional Education Sequence is 24 hours.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

Dr. Marcia Anderson - Chairman of Program Area
Departmental Telephone - 618-453-2620
Location: General Classrooms Building, Room 308

RECOMMENDED PROGRAM

CHEMISTRY¹
College of Education

The Department of Chemistry offers three concentrations in chemistry. The Bachelor of Arts degree with certification by the American Chemical Society is recommended for those who wish to become professional chemists. The Bachelor of Science degree involves less work in chemistry. This program is recommended to students who wish to complete a concentration in chemistry, but who plan on eventually going into other professional areas such as medicine, dentistry, etc.

The Bachelor of Science degree in Education is administered by the College of Education. It is provided for those who wish to become secondary school chemistry teachers.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 212 or 300	Introduction to American Government & Politics	-	4
GSC	Humanities (select) ²	3	-
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select) ²	-	2
GSE 201	Healthful Living	-	2
GSE	Health and Physical Development Activity	-	1
*Chem 224, 225	Introduction to Chemical Principles and Lab	7	-
Chem 226	Introduction to Quantitative Chemical Principles	-	5
or			
*Chem 222a,b	Introduction to Chemical Principles	4	4
**Math 111	College Algebra and Trigonometry	5	-
		15 or 18	13 or 18
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSB 202	Introduction to Psychology	3	3
GSC	English elective in Humanities (select) ²	3	-
GSC	Humanities (select) ²	-	3
GSD 153	Public Communication	-	2
Math 150	Calculus I	4	-
ED 201	Teacher's Role in Public School Education	1	-
Chem 226	If student has taken Chem 222a,b	5	-
or			
Chem 344	Organic Chemistry	4	-
Chem 345	Laboratory Techniques	2	-
Chem	Major Course	-	4
		16 or 17	15

*Approved substitute for GSA.

**Approved substitute for GSD Math.

¹See also the program under College of Science.

²Refer to the section General Studies for the Transfer Student.

³For specific major requirements see the Undergraduate Catalog.

Chemistry As A Major

To include the following required courses: GSB 202, Introduction to Psychology, GSB 212, Introduction to American Government and Politics OR GSB 300, History of the United States 1492 to 1877; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental); Mathematics 111, (or Mathematics 110).

Departmental substitutions in General Studies: For GSA 101 - Physics 203, 204, or 205; for GSA 106 - Chemistry 224; for GSA 107 - Chemistry 225; for GSD 107 (see above) - Mathematics 111.

Chief Academic Advisor

Telephone - 618-536-2329

Location - Wham Building, Room 108

RECOMMENDED PROGRAM

CHEMISTRY AND BIOCHEMISTRY
College of Science

The Department of Chemistry and Biochemistry has a long and distinguished record for its programs at the undergraduate level. These courses are designed to give thorough training in theory and practice. Three undergraduate degrees are offered allowing a student to select a program best suited to his future goals.

The Bachelor of Science degree from the College of Science is for those who will prepare for graduate school or who plan to be professional chemists. Those completing this degree meet the certification requirements of the American Chemical Society.

The Bachelor of Arts degree, also from the College of Science, offers the student greater choice in selecting his program. One option gives the student the minimum preparation for graduate work in Chemistry or Biochemistry; another prepares for medicine, dentistry and other health sciences.

The Bachelor of Science in Education with a major in chemistry is administered by the College of Education.

A suggested beginning program for departmental majors is:

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Biol (not GSA)		3	3
Chem 224	General Chemistry	5	-
Chem 225	General Chemistry Lab	2	-
Chem 226	Quantitative Analysis	-	5
GSD 110	English Composition	3	-
GSD	(Speech, Technical Writing or Literature)	-	3
Math 111	College Algebra and Trigonometry	5	-
Math 150	Analytic Geometry and Calculus	-	4
		<u>18</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Chem 344	Organic Chemistry	4	-
Chem 345	Laboratory Techniques	2	-
Chem 348 or 346	Organic Chemistry	-	2
Chem 349 or 347	Laboratory Technique	-	3
Math 250		-	3
FL	(German Recommended)	4	4
Phys 205		3	3
Phys 225		<u>1</u>	<u>1</u>
		<u>18</u>	<u>16</u>

Third and Fourth Year

The last two years of a student's program concentrate on specific professional objectives. The B.S. in the College of Science requires a year of calculus based physical chemistry, a course in instrumental analysis and advanced courses from biochemistry, inorganic chemistry, organic chemistry or physical chemistry. The B.A. degree is somewhat less demanding and the available options allow a program to be tailored to the needs of the individual.

Chemistry As A Major

Our Faculty consists of 23 Ph.D.'s; our building is quite new, and our teaching equipment is modern. We take pride in the quality of professional training that is available to our students. Those who are interested in careers in research or college teaching will continue their education in an appropriate graduate school. Others may enter professional schools or select immediate employment in the industry. The chemist typically finds work in private or government laboratories, and his activities may be in research and development, sales, or analysis and control of manufacturing processes.

Dr. David Schmulbach - Chairman
Departmental Telephone - 618-453-5721
Location - Neckers Building, Room 224

RECOMMENDED PROGRAM

CHILD AND FAMILY (Program in - Preschool/Early Childhood Specialization) Division of Human Development College of Human Resources

The preschool early childhood specialization has been specifically designed to prepare future teachers of children under six and will lead to certification by the State of Illinois. This program is jointly offered by the Department of Elementary Education in the College of Education.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	3
GSB 202	Introduction to Psychology	3	-
*GSB 203	Introduction to Sociology	-	4
**GSC	Humanities (Art and Music are required)	3	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	English Composition	-	2
GSD 152	Speech	-	2
F&N 100	Fundamentals of Nutrition	3	-
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	-
GSB 212	American Government	4	-
GSC	Humanities (select)	-	3
GSD 107	Basic College Mathematics	4	-
GSE	Health and Physical Development	1	1
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	-	3
GSE 201	Healthful Living	-	2
Elective		-	3
*Psyc 301	Child Psychology (Rec.)	-	3
		<u>15</u>	<u>16</u>

*Recommended electives.

**Under Humanities - Music 101 is to be substituted for GSC 100 for certification. Art may be GSC 101, 204, 205, or Art 100 or 348.

Flexibility of program provides for specialization in the areas of direct care of children, teaching, and community development related services.

Graduate degree available.

Faculty have varied interests in Child Development/Family Relations, retardation, motivation of the child, sex education.

Excellent facilities - Child Development Laboratory with observation booth.

Dr. Michael Zurich - Divisional Executive Officer
Departmental Telephone - 618-453-2661
Location - Home Economics Building, Room 116F

RECOMMENDED PROGRAM

CHILD AND FAMILY

(Program in - Preschool Directors and Teachers, Child Care Specialists in Social Services, Residential Life Directors and Supervisors)

Division of Human Development
College of Human Resources

Within a major in Child and Family, the curriculum offers specialization in Pre-School Programs. These courses offer basic background leading to position as nursery school director or teacher in private schools, colleges and universities and day care centers; director or teacher in residential living facilities for exceptional children; child care specialists with social, public health and welfare agencies; home economics extension specialists in child care; and recreational leaders.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	3
GSB 202	Introduction to Psychology	3	-
GSB 203	Introduction to Sociology	-	4
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117, 118, 119	English Composition	-	2
GSD 152	Speech	-	2
F&N	Fundamentals of Nutrition	3	-
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	-
*GSB 212	American Government	4	-
GSC	Humanities (select)	-	3
GSD 107	Basic College Mathematics	4	-
GSE	Health and Physical Development	1	1
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	-	3
GSE	Health (select)	-	2
Elective		-	3
*Psyc 301	Child Psychology (Rec.)	-	3
		<u>15</u>	<u>15</u>

*Recommended electives.

Child And Family As A Major

No minor required.

Flexibility of program provides for specialization in the areas of direct care of children, teaching, and community development related services.

Graduate degree available.

Faculty have varied interests in Child Development/Family Relations - retardation, motivation of the child, sex education.

Excellent facilities - Child Development Laboratory with observation booth.

Dr. Michael Zunich - Division Executive Officer
Department Telephone - 618-453-2661
Location - Home Economics Building, Room 116F

RECOMMENDED PROGRAM

CINEMA AND PHOTOGRAPHY
(Cinema - Film Production)
College of Communications and
Fine Arts

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

Six fields of specialization are available to the student in Cinema and Photography: Cinema, Cinema and Photography, Photojournalism, Still Photography (professional photography), Still Photography (Fine Arts), Film History/Theory/Criticism.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select) ¹	-	4
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Public Communication (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	2	2
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GS Elective	From A, B or C (select) ¹	3	-
*C&P 350	The Film Industry	2	-
*C&P 351	Introduction to Motion Picture History/Theory	-	3
*C&P 355	Film Production I	4	-
*C&P 356	Film Production II	-	4
C&P Electives	(select) ¹	3	3
		<u>15</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

*Requirements for Cinema - Film Production.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. A graduate degree in Public Visual Communication is available in cooperation with the Department of Radio-TV. New facilities opened in March of 1971.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Dr. Peter Bukalski - Chairman
Departmental Telephone - 618-453-2365
Departmental Location - Communications Building, North Wing

RECOMMENDED PROGRAM

CINEMA AND PHOTOGRAPHY
 (Cinema and Photography
 Specialization)
 College of Communications and
 Fine Arts

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

Six fields of specialization are available to the student in Cinema and Photography: Cinema, Cinema and Photography, Photojournalism, Still Photography (professional photography), Still Photography (Fine Arts), Film History/Theory/Criticism.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select) ¹	-	4
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Public Communication (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	2	2
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GS Elective	From A, B or C (select) ¹	3	-
*C&P 310	History of Still Photography	3	-
*C&P 311	Contemporary Photography	-	3
*C&P 320	Basic Photography	4	-
*C&P 322	Color Photography	-	4
*C&P 350	The Film Industry	2	-
*C&P 351	Introduction to Motion Picture History/Theory	-	3
		<u>15</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

*Requirements for Cinema and Photography specialization.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. A graduate degree in Public Visual Communication is available in cooperation with the department of Radio-TV. New facilities opened in March of 1971.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Dr. Peter Bukalski - Chairman
 Departmental Telephone - 618-453-2365
 Departmental Location - Communications Building, North Wing

RECOMMENDED PROGRAM

CINEMA AND PHOTOGRAPHY (Film History/Theory/Criticism) College of Communications and Fine Arts

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

Six fields of specialization are available to the student in Cinema and Photography: Cinema, Cinema and Photography, Photojournalism, Still Photography (professional photography), Still Photography (Fine Arts), Film History/Theory, Criticism.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select) ¹	-	4
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Public Communication (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	2	2
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GS Elective	From A, B or C (select) ¹	3	-
*C&P 350	The Film Industry	2	-
*C&P 351	Introduction to Motion Picture History/Theory	-	3
*C&P 355	Film Production I	4	-
*C&P 360	Film Analysis and Criticism	-	3
C&P Electives		4	4
		<u>16</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

*Requirements for Film History/Theory/Criticism.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. A graduate degree in Public Visual Communication is available in cooperation with the Department of Radio-TV. New facilities opened in March of 1971.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance to certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Dr. Peter Bukalski - Chairman
Departmental Telephone - 618-453-2365
Departmental Location - Communications Building, North Wing

RECOMMENDED PROGRAM

CINEMA AND PHOTOGRAPHY
 (Photojournalism Specialization)
 College of Communications and
 Fine Arts

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

Six fields of specialization are available to the student in Cinema and Photography: Cinema, Cinema and Photography, Photojournalism, Still Photography (professional photography), Still Photography (Fine Arts), Film History/Theory/Criticism.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select) ¹	-	4
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Public Communication (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	2	2
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GS Elective	From A, B or C (select) ¹	3	-
*C&P 310	History of Still Photography	3	-
*C&P 311	Contemporary Photography	-	3
*C&P 320	Basic Photography	4	-
*Jrnl 310	Writing for the Mass Media	3	-
*Jrnl 311	Reporting and News Writing	-	3
Jrnl Elective		-	4
		<u>16</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

*Requirements for Photojournalism Specialization.

See also Photojournalism under School of Journalism.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. A graduate degree in Public Visual Communication is available in cooperation with the Department of Radio-TV. New facilities opened in March of 1971.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Dr. Peter Bukalski - Chairman
 Departmental Telephone - 618-453-2365
 Departmental Location - Communications Building, North Wing

RECOMMENDED PROGRAM

CINEMA AND PHOTOGRAPHY (Professional Photography) College of Communications and Fine Arts

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

Six fields of specialization are available to the student in Cinema and Photography: Cinema, Cinema and Photography, Photojournalism, Still Photography (professional photography), Still Photography (Fine Arts), Film History/Theory/Criticism.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select) ¹	-	4
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Public Communication (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	2	2
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GS Elective	From A, B or C (select) ¹	3	-
*C&P 310	History of Still Photography	3	-
*C&P 311	Contemporary Photography	-	3
*C&P 320	Basic Photography	4	-
*C&P 322	Color Photography	-	4
C&P Electives	(select) ¹	3	3
		<u>16</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

*Requirements for Professional Photography.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. A graduate degree in Public Visual Communications is available in cooperation with the Department of Radio-TV. New facilities opened in March of 1971.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Dr. Peter Bukalski - Chairman
Departmental Telephone - 618-453-2365
Departmental Location - Communications Building, North Wing

RECOMMENDED PROGRAM

CINEMA AND PHOTOGRAPHY
(Still Photography - Fine Arts)
College of Communications and
Fine Arts

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

Six fields of specialization are available to the student in Cinema and Photography: Cinema, Cinema and Photography, Photojournalism, Still Photography (professional photography), Still Photography (Fine Arts), Film History/Theory/Criticism.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select) ¹	-	4
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Speech or Public Communication (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	2	2
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GS Elective	From A, B or C (select) ¹	3	-
*C&P 310	History of Still Photography	3	-
*C&P 311	Contemporary Photography	-	3
*C&P 320	Basic Photography	4	-
*C&P 322	Color Photography	-	4
C&P Electives	(select) ¹	3	3
		<u>16</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

*Requirements for Still Photography - Fine Arts.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. A graduate degree in Public Visual Communications is available in cooperation with the Department of Radio-TV. New facilities opened in March of 1971.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Dr. Peter Bukalski - Chairman
Departmental Telephone - 618-453-2365
Departmental Location - Communications Building, North Wing

RECOMMENDED PROGRAM

CLASSICAL STUDIES
College of Liberal Arts

Programs of study leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classical Studies, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish is required to take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
GSD	English Composition ¹ and one of 117, 118, or 119	3	2
*LAT 133a,b or GRK 130a,b or *LAT 201a,b or GRK 201a,b	Elementary Latin ³ or Greek ³	4	4
GSD	Intermediate Latin ³ or Greek ³	(3)	(3)
Elective ^{1,2}	Math (select) ¹	-	4
		2	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	-	3
GSC	Humanities (select) ¹	3	-
GSD	Speech (select) ¹	2	-
*CLSt 270	Greek Civilization	3	-
*CLSt 271	Roman Civilization	-	3
GSE	Health and Physical Development (select) ¹	2	-
Elective ^{1,2}		3	3
Elective ^{1,2}		-	3
		<u>16</u>	<u>15</u>

*Counts in the 36 hour Classical Studies major requirement.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Elective hours should be used in the following ways: 1) students may explore areas of interest, 2) they may select courses to satisfy Liberal Arts requirements.

³Proficiency exams can be taken in this course.

Classical Studies As A Major

A major in Classical Studies consists of 36 semester hours in courses on all levels. Electives may be chosen from specified courses in the departments of Anthropology, Art, History, Philosophy, Political Science, and Religious Studies. A minor in Classical Studies consists of 15 semester hours.

NOTE: Foreign Language majors must satisfy College of Liberal Arts requirements. Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU-C.

Dr. Eugene Timpe - Chairperson
Department Telephone - 618-536-5571
Location - Faner Building, Room 2082

RECOMMENDED PROGRAM

CLOTHING AND TEXTILES
 Apparel Design
 Division of Comprehensive
 Planning and Design
 College of Human Resources

The apparel design program in the Division of Comprehensive Planning and Design gives students training for design occupations either in an industrial setting or in a custom shop. Many careers in design-related businesses are also available to the graduate of this program. The variety of course offerings is outstanding, which provides the student with opportunity to develop individual skills and competencies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 106, 107	Chemistry	-	4
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)	-	2
Speech or Communications		2	-
GSE	Health and Physical Development (select)	2	-
Art 100	Basic Studio	4	4
GSD 107	Intermediate Algebra	4	-
GSC	Humanities (select)	-	3
Elective		-	3
		<u>15</u>	<u>16</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	3	-
GSC 205	Design	3	-
Art 200	Beginning Drawing	-	2
GSB 211	Comparative Economics	-	3
Art History		3	-
GSA	Science (select)	-	3
GSB	Social Studies (select)	-	3
GSC	Humanities (select)	3	-
GSE	Health and Physical Development (select)	-	2
GS Choice	Science, Social Studies, Humanities (select)	-	3
Elective		3	-
		<u>15</u>	<u>16</u>

Third and Fourth Year

Chemistry and CT 127 (Clothing Construction) must be taken the first semester the transfer student is at SIU-C. Other courses taken during the last two years will include the professional apparel design courses within the department and electives.

This specialization is intended for the student interested in professional preparation in apparel design or allied design positions in either industrial or commercial fashion businesses. The courses available to the student cover textile information, fashion design, and skills required for developing original designs into patterns and completed garments. Courses in Clothing and Textiles are complemented by ones in art, business, and other areas in order to provide a suitable background for various career opportunities.

Dr. Wayne L. St. John - Divisional Executive Officer
 Telephone - 618-536-7741
 Location - Home Economics Building, Room 311 D

RECOMMENDED PROGRAM

CLOTHING AND TEXTILES

Retailing
Division of Comprehensive
Planning and Design
College of Human Resources

The retailing program at Southern Illinois University - Carbondale is offered through the Division of Comprehensive Planning and Design. Professional and free elective hours make it possible for the student to choose the courses of greatest personal value.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 106, 107	Chemistry	-	4
GSD 101	English Composition	3	-
Speech or Communications		2	-
GSD 117, 118 or 119	Writing (select)	-	2
GSE	Health and Physical Development (select)	2	-
GSD 107	Intermediate Algebra	4	-
GSC	Humanities (select)	3	3
GSB	Social Studies (select)	-	3
Elective		-	3
		<u>14</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Acct 210 or 211	(select one)	-	3
EDP 107, CS 202, or GSD 110			
or 112	(select)	2-3	-
GSC 205	Design	3	-
GSB 202	Introduction to Psychology	3	-
GSB 211	Contemporary Economics	3	-
GSA	Science (select)	-	3
GSE	Health and Physical Development (select)	2	-
GS Choice	Science, Humanities or Social Studies (select)	3	-
Mktg 304	Marketing Management	-	3
Elective		3	3
		<u>16-17</u>	<u>15</u>

Third and Fourth Year

Chemistry should be taken the first semester the transfer student is at SIU-C. Other courses during the last two years will include additional work in marketing, administrative sciences and related business courses; core, electives and professional courses within the Clothing and Textiles Department; and elective hours. The retailing major should have some experience in a sales position before the junior year.

This specialization prepares the student for a profession in retail stores, either as buyers or department managers. Other related retailing positions which are also available to the student cover textile information, fashion merchandising, marketing, and other business-related courses.

Dr. Wayne L. St. John, Divisional Executive Officer
Telephone - 618-536-7741
Location - Home Economics Building, Room 311

RECOMMENDED PROGRAM

COMPUTER SCIENCE - A
College of Liberal Arts
(Bachelor of Arts)

The Department of Computer Science now offers a new undergraduate program leading to the Bachelor of Arts degree. The curriculum will provide a student with broad undergraduate training in computer science and will also permit concentration in particular areas of interest. The program is designed to prepare students for advanced study in computer science.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
Math 111		5	-
Math 150		-	4
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	-	3
GSD	English Composition ¹ and one of 117, 118, or 119	3	2
GSE	Health and Physical Development (select) ¹	2	-
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
CS 202		3	-
CS		-	4
Math 250		4	-
Math 251		-	3
GSA	Science (select) ¹	3	-
GSB	Social Science (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD	Speech (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	-	2
		<u>15</u>	<u>15</u>

Requirements for a major in computer science are specified in two alternative forms. The program under option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

CS 202 is a first course in programming using PL/1 as a vehicle. CS 302, 314p, 314f are sequels to CS 202. CS 302 is an intensive assembly language programming course, 314p is a second course in PL/1 and 314f is a first course in FORTRAN. CS 202 and 302 are required and CS 314p and 314f are electives. Normally the student will take 202 and at least one of the other courses in the student's sophomore year.

Mathematics courses: The basic calculus requirement for a CS major under option A is 8 hours as defined by Math 150 and 250. These may be taken in the student's third year without retarding graduation but it is preferable that they be taken earlier. Math 251 is not required, it is a recommended elective. Note that a student with insufficient background may have to take a precalculus course such as Math 111 prior to taking Math 150.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

Computer Science As A Major

The department offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate curriculum which prepares students for professional and technical careers in government and industry or for graduate work leading to advanced degrees. The curriculum includes such topics as programming, computer hardware and software systems, simulation, data management and computer applications to business and science. Students will be advised with respect to computer science courses by the department so that they may profitably pursue their academic and professional interests.

Dr. A. M. Mark - Chairperson
Department Telephone - 618-536-2327
Location - Faner 2126

RECOMMENDED PROGRAM

COMPUTER SCIENCE - B
College of Liberal Arts
(Bachelor of Arts)

The Department of Computer Science now offers a new undergraduate program leading to the Bachelor of Arts degree. The curriculum will provide a student with broad undergraduate training in computer science and will also permit concentration in particular areas of interest.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
Math 116 ²		5	-
Math 117 ²		-	4
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	-	3
GSD	English Composition ¹ and one of 117, 118, or 119	3	2
GSE	Health and Physical Development (select) ¹	2	-
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
CS 202		3	-
CS		-	4
Math 250		4	-
Elective		-	3
GSA	Science (select) ¹	3	-
GSB	Social Science (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD	Speech (select) ¹	2	-
GSE	Health and Physical Development (select) ¹	-	2
		<u>15</u>	<u>15</u>

Requirements for a major in computer science are specified in two alternative forms. The program under option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

CS 202 is a first course in programming using PL/1 as a vehicle. CS 302, 314p, 314f are sequels to CS 202. CS 302 is an intensive assembly language programming course, 314p is a second course in PL/1 and 314f is a first course in FORTRAN. CS 202 and 302 are required and CS 314p and 314f are electives. Normally the student will take 202 and at least one of the other courses in the student's sophomore year.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Mathematics Courses: Option B is a combination of finite mathematics and intuitive calculus which require less technical prerequisites. The requirement may be satisfied by taking Math 116, 117 or Mathematics 139, 140, the choice depending on the student's background in mathematics.

Computer Science As A Major

The department offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate curriculum which prepares students for professional and technical careers in government and industry or for graduate work leading to advanced degrees. The curriculum includes such topics as programming, computer hardware and software systems, simulation, data management and computer applications to business and science. Students will be advised with respect to computer science courses by the department so that they may profitably pursue their academic and professional interests.

Dr. A. M. Mark - Chairperson
Department Telephone - 618-536-2327
Location - Faner 2126

RECOMMENDED PROGRAM

DESIGN

Division of Comprehensive
Planning and Design
College of Human Resources
(Bachelor of Arts)

The faculty and students of the Design Program are a part of the Division of Comprehensive Planning and Design.

Design is defined as devising innovative courses of action to change existing situations into preferred situations. This definition translated into the educational purpose of the Design program means that our prime responsibility is to develop within our participants generalized abilities to cope effectively with multi-faceted design problems.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	3
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	-	3
GSC 205	Design	3	-
GSD 101	English Composition	3	-
GSD 117, 118, 119	Writing (select)	-	2
GSD 152, 153	Speech (select one)	2	-
GSE	Health and Physical Development (select)	1	1
Des 120	Introduction to Design	-	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	-
GSB	Social Studies (select)	-	2
GSC	Humanities (select)	3	3
GSD 107	Fundamentals of Mathematics	4	-
GSE	Health and Physical Development (select)	1	1
Des 201	Fundamentals of Design	5	5
Elective		-	3
		<u>16</u>	<u>15</u>

Design As A Major

A goal of the program is the maintenance of an educational experience which fosters in individuals a sensitivity and openness to one's self and environment through an integration of design skills with problem-solving strategies and concepts relevant to present and future events. In addition, our students and faculty engage in socially useful design research and provide appropriate services to the University and the community.

Students must have a minimum 2.0 grade point average and it is recommended that they earn a grade of B or better in GSC 205, Design 120, and Design 201 to be admitted to a major in design.

Dr. Wayne L. St. John - Divisional Executive Officer
Telephone - 618-453-5761
Location - Bldg. 0720

RECOMMENDED PROGRAM

EARLY CHILDHOOD EDUCATION (K-3)
College of Education

Following are the requirements for the Bachelor of Science degree with a concentration in early childhood education and for meeting the minimum requirements for a standard Elementary School Certificate.

In addition to general university and College of Education requirements, a student must meet all requirements pertaining to prerequisites to student teaching and should study the section in the Undergraduate Catalog which lists such requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	2
GSC 101	Introduction to Art	3	-
GSD 101	English Composition	3	-
GSD 152	Interpersonal Communication	2	-
GSD 117	Expository Writing	-	2
GSE	Health and Physical Development (select) ¹	2	-
GSE 201	Healthful Living	-	2
CEM 213	Teacher's Role in Public School Education	-	1
ELED 203	Understanding the Elementary School Child	-	2
Fine Arts		-	3
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 202	Introduction to Psychology	3	-
GSB 300	History of U.S. 1492 to 1877	-	3
GSC	Literature (select) ² (or English required)	3	-
GSD 107	Intermediate Algebra	4	-
PEW 319	Physical Activity for Children and Youth	3	-
Math 308	Math for Elementary Teachers I	-	3
Mus 101	Music Fundamentals (or GSC) (select) ²	-	2
Language Arts	(select) ²	-	3
Electives		<u>3</u>	<u>3</u>
		<u>19</u>	<u>17</u>

¹See section on General Studies for the Transfer Student.

²Refer to University Catalog for detailed explanation of additional general education and departmental requirements.

Early Childhood Education (K-3) As A Major

Students who plan to teach grades K-3 should major in Early Childhood Education.

Students should also refer to the section in this handbook specifying the requirements for entrance into the Formal Teacher Education Program.

Dr. Donald Paige - Chairman
Departmental Telephone - 618-453-2239
Location - Wham Building, Room 327

Chief Academic Advisor
Departmental Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

EARLY CHILDHOOD - PRESCHOOL
CERTIFICATION PROGRAM
 College of Education

For the last decade educators have become increasingly aware of the importance of providing quality care and guidance for the preschool child. This program has been designed for persons interested in the education of children 0-6 years of age. It is offered jointly by the College of Education and the College of Human Resources. Students following this program will meet state certification requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 202	Introduction to Psychology	3	-
GSC 100	Music Understanding	2	-
GSC	Humanities (select) ¹	-	3
GSD 101	English Composition	3	-
GSD 119	Creative Writing	-	2
GSD 107	Intermediate Algebra	4	-
GSD	Speech (select) ¹	-	2
GSE	Health and Physical Development (select) ¹	-	2
GSE 201	Healthful Living	-	2
Elective		-	1
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB 212	American Government	-	4
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹ (English required)	2	2
C & F 227	Marriage and Family Living	3	-
C & F 237	Child Development	3	-
F & N 100	Fundamentals of Nutrition	-	3
Psyc 301	Child Psychology	-	3
Electives		1	3
		<u>15</u>	<u>15</u>

¹See section on General Studies for the Transfer Student.

Refer to the Undergraduate Catalog 1976/1977, page 181, for additional information on this program.

Specific General Studies courses listed are required for this program.

For further information:

Chief Academic Advisor
 College of Education
 Telephone - 618-536-2329
 Location - Wham Building, Room 108

RECOMMENDED PROGRAM

ECONOMICS¹
College of Education

The Economics major consists of 32 semester hours. Of these, 14 hours are required courses. With 18 hours remaining, a student can specialize in one of the following areas: Comparative Systems, Economic Development, Economic History, Economic Theory, Econometrics, Human Resources, International Economics, Money and Banking, Political Economy, or Public Finance.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB 112	Comparative Economics	3	-
GSB 211	Contemporary Economics	-	3
GSC	Humanties (select) ²	3	3
GSD 101	English Composition	3	-
GSD 113	Introduction to Mathematics	3	-
*GSD 110	Economics and Business Statistics	-	2
GSD 117	Expository Writing	-	2
GSE 201	Healthful Living	-	2
ED 201	Teacher's Role in Public School Education	1	-
		16	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSB 300	History of U.S. from 1492 - 1877	3	-
GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select) ²	3	-
GSD 153	Public Communication	2	-
GSE	Physical Education	1	1
Econ 214 & 215	Macro and Micro Economics	3	3
Electives		3	4
		15	14

*Part of Economic major requirement. Economics 214 also satisfies part of GSB requirement.

¹See also the program under College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Studies for the Transfer Student.

Economics As A Major

The following specific General Studies courses are required for teacher certification. (These courses may be completed during the freshman and sophomore years): GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300, History of the United States 1492 1877; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental).

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

ECONOMICS
 College of Liberal Arts
 (Bachelor of Arts)

The Economics major consists of 31 semester hours. Of these, 16 hours are required courses. With 15 hours remaining, a student can specialize in one of the following areas: Comparative Systems, Economic Development, Economic History, Economic Theory, Econometrics, Human Resources, International Economics, Money and Banking, Political Economy, Public Finance. The flexibility permitted by the Liberal Arts minor and electives available make possible a program tailored to meet the needs of individual career preparation plans.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	-	3
GSD	English Composition ¹ and one of 117, 118, or 119	3	2
GSD	Speech (select) ¹	-	2
GSD	Math (select) ¹	4	-
GSE	Health and Physical Development (select) ¹	2	-
Elective ^{1,2}		-	2
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSC	Humanities (select) ¹	3	3
GSE	Health and Physical Development (select) ¹	2	-
GS (A,B,C)	(Select) ¹	-	3
*Econ 214 & 215	Introduction Macro and Micro	3	3
Elective ^{1,2}		4	6
		<u>15</u>	<u>15</u>

*Part of Economic major requirement. Economics 214 also satisfies part of GSB requirements.

¹To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Studies for the Transfer Student.

²Elective hours should be used in the following ways: 1) students may explore areas of interest with the aim of selecting a minor or fulfilling requirement of the College of Liberal Arts; 2) arrange a program including an approved minor tailored to meet specific career objectives (students planning graduate study in economics are encouraged to take all the mathematics they are capable of taking).

Economic As A Major

Preparation for graduate study in economics, business, or in law school has long been a motivation for majoring in economics. In addition, specialists in economics are in increasing demand for both government and business employment.

Dr. Terry Foran - Chairperson
 Department Telephone - 618-536-7746
 Location - Faner Building 4121

RECOMMENDED PROGRAM

ELEMENTARY EDUCATION (K-9)
College of Education

Following are the requirements for the Bachelor of Science degree with a concentration in elementary education and for meeting the minimum requirements for a standard Elementary School Certificate.

In addition to general university and College of Education requirements, a student must meet all requirements pertaining to prerequisites to student teaching and should study the section in the Undergraduate Catalog which lists such requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities, Fine Arts (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 117	Expository Writing	-	2
GSD 152	Interpersonal Communications	2	-
GSE	Health and Physical Development	2	-
GSE 201	Healthful Living	-	2
Language Arts	(select) ²	-	3
ED 201	Teacher's Role in Public School Education	-	1
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	2
GSB 202	Introduction to Psychology	3	-
GSB 300	History of U.S. 1492 to 1877	-	3
GSC	Literature (select) ² (or English required)	3	-
GSD 107	Intermediate Algebra ²	3	-
GSE	Health and Physical Development (select) ^{1,2}	1	-
Math 308	Math for Elementary Teachers I	-	2
Mus 101	Music Fundamentals (or GSC) (select)	-	2
Language Arts	(select) ²	-	3
GSB 212	Introduction to American Government and Politics	3	-
General Elective	(select) ²	-	3
		<u>16</u>	<u>15</u>

¹See section on General Studies for the Transfer Student.

²Refer to University Catalog for detailed explanation of additional general education and departmental requirements.

Elementary Education (K-9) As A Major

Students who plan to teach children from grades 1-9 and specifically grades 4-6 should major in Elementary Education.

All students should refer to the section in the handbook specifying the requirements for entrance into the Formal Teacher Education Program.

Dr. Donald Paige - Chairman
Departmental Telephone - 618-453-2239
Location - Wham Building, Room 327

Chief Academic Advisor
Departmental Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

ENGINEERING

(Electrical Sciences & Systems Engineering Option)
 (Engineering Mechanics & Materials Option)
 (Thermal & Environmental Engineering Option)
 School of Engineering and Technology

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind.

The four-year undergraduate program leading to the Bachelor of Science degree in engineering is a modern, flexible curriculum fully accredited by the Engineers' Council for Professional Development (ECPD).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*Engr. 100	Graphics or Introduction to Engineering	3	-
GSB	Social Sciences (select) ^{1,2}	3	-
GSC	Humanities (select) ^{1,2}	3	3
*GSD 101, 118	English Composition & Technical Report Writing ^{1,2}	3	2
GSE	Health and Physical Development (select) ^{1,2}	1	1
*Chem. 224, 225	Chemistry & Chemistry Laboratory ⁴	-	7
*Math 150, 250	Calculus and Analytic Geometry ³	4	4
		17	17
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*Engr. 222	Computational Methods for Engineers	2	-
*Engr. 260a,b	Mechanics of Rigid Bodies (Statics and Dynamics)	2	3
*GSA	Introductory Biology, Physiology, or Geology ²	3	-
GSB	Social Studies (select) ^{1,2}	-	3
GSC	Humanities (select) ^{1,2}	-	3
*GSD	Communications	2	-
*Math 251, 305	Calculus and Differential Equations	3	3
*Phys. 205, 255	Physics and Physics Laboratory ⁴	4	4
		16	16

*Required courses for a major in Engineering.

¹Refer to section, General Studies for the Transfer Student, for general education requirements.

²Major requirements due to accreditation standards must include 16 hours of Humanities and Social Studies; 7 hours of oral and written communications and 18 hours of basic science.

³Math 150 substitutes for GSD Math.

⁴Chem 224 and Physics 205 and 255 are considered suitable substitutes for GSA credit.

Engineering As A Major

No foreign language required.

Relatively small class sizes encourage close student-teacher relationships, and modern, well-equipped laboratories provide an excellent environment for learning. A majority (85%) of the Engineering faculty hold an earned doctorate degree.

In recent years, engineers have been asked to assume responsibility for solving the complex problems of society, recognizing not only the technical aspects, but also the sociological implications of their decisions. The curriculum is designed to provide society with graduates who can cope with a variety of engineering activities such as design, development, testing, consulting, and applied research. These activities may be directed toward the solution of contemporary problems varying from design of devices to problems of an interdisciplinary or complex-systems nature.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include 3 hours of English Composition, 2 hours of Technical Writing; 2 hours of Speech; 8 hours of University Physics; 7 hours of Chemistry; 11-14 hours of Math, including Calculus; 5 hours of Analytical Mechanics (Statics and Dynamics); and 3 hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

The engineering program is designed to provide a basic foundation for the professional engineer. Students with Bachelor of Science degrees in Engineering will have an opportunity to specialize further at the graduate level.

Dr. James Smith (Electrical Sciences & Systems Engineering), Phone 618-536-2364
 Dr. Philip Davis (Engineering Mechanics & Materials), Phone 618-536-2368
 Dr. J. W. Chen (Thermal and Environmental Engineering), Phone 618-536-2396

RECOMMENDED PROGRAM

ENGINEERING BIOPHYSICS

College of Science
(Bachelor of Science)

The Engineering Biophysics program is a challenging, innovative program that leads to the Master of Science degree in engineering biophysics in only five years.

The first four years of study emphasize selected areas in the behavioral, engineering, life, mathematical, and physical sciences. At the end of this intensive four-year program you will receive the Bachelor of Science degree.

The fifth year of study emphasizes advanced aspects in the behavioral and life sciences and provides optimum flexibility in electives as well as practical biomedical experience. An internship at selected hospitals or laboratories of industry and government is a requirement for completing the graduate program and receiving the Master of Science degree.

With this degree you will be uniquely qualified to become a professional applied-scientist who can effectively bridge the communication gap between the physical sciences and the behavioral, life, and social sciences. Or you may choose to go to medical or dental school because this program offers flexibility, all the appropriate course requirements, and considerable background strength. You will also have the ability to move into a doctoral program at an institution where advanced degrees in biophysics or bioengineering science are offered. The student of engineering biophysics at SIU does not need to elect his field of specialization until his junior year.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
FL	Foreign Language (French 123, German 126, Spanish 140, Russian 136)	4	4
GSD 101	English Composition	3	-
GSD 117	Expository Writing	-	2
or			
GSD 118	Technical Report Writing	-	(2)
or			
GSD 119	Creative Writing	-	(2)
GSD 100 level	Communications (152 or 153 - Speech)	-	2
GSE 100 level	Activities (Physical Education)	1	1
Math 111	College Algebra and Trigonometry	5	-
or			
Math 110a,b	College Algebra and Trigonometry	(2)	-
Math 150	Calculus I	-	4
Phys 204a,b			
(Op. 1)	College Physics - Honors	3	3
and			
Phys 254a,b	College Physics - Honors Lab	1	1
or			
Phys 203a,b	College Physics	(3)	(3)
and			
Phys 253a,b	College Physics - Lab	(1)	(1)
EB 492	Colloquy in Engineering Biophysics	-	1
		<u>17</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Biol 305	Genetics - Classical and Molecular	3	-
or			
Zool 118	General Zoology	(3)	-
Math 250	Calculus II	4	-
Phys 205c	University Physics	3	-
Chem 222a,b	Introduction to Chemical Principles	4	4
or			
Chem 224	Introduction to Chemical Principles	(5)	-
and			
Chem 225	Introduction to Laboratory Techniques	(2)	-
Botany 335	Methods in Genetics	-	2
or			
Botany 200	General Botany	-	(3)
and			
Botany 201	General Botany Lab	-	(1)
EEM (Op. 2)	Electricity and Electromagnetism	-	4
EB 492	Colloquy in Engineering Biophysics	-	1
GSB 202	Introduction to Psychology	-	3
GSB 104	Man and His World - Anthropology	-	3
Elective		3	-
		<u>17</u>	<u>17</u>

Refer to pages 176, 177 for specific departmental requirements.

Approved substitutes included for GSD Math, GSA Science.

Engineering Biophysics As A Major

The student will receive the Bachelor of Science degree upon satisfactory completion of four years of study. The student who continues study beyond the bachelor's degree will normally spend one academic year in residence to obtain the Master of Science degree. He will also be required to spend an additional three months in an internship which may be in a hospital, an industrial laboratory, or in an academic area of research on campus.

Requirements for the bachelor's degree may vary somewhat with the particular college in which the student is seeking his degree. He may be admitted to the colleges or schools of science, arts, communications, or others by arrangements.

The University supports a data processing and computer center. It also has research shops for electronics, fine instruments, large equipment, and glassblowing. Essential instruments are available for the superior training of an engineering biophysicist. Laboratories are modern and well equipped. They are located in two life sciences buildings, communications building, physical science building, and an engineering and technology building.

The balanced laboratories and classrooms are supported by the impressive Morris Library which contains over 1,400,000 volumes. It also houses the comprehensive science library of more than 100,000 books and 110,000 bound periodicals.

Harold Kaplan - Director
Telephone - 618-536-2143
Location - Life Science I, Room 111

RECOMMENDED PROGRAM

ENGINEERING TECHNOLOGY

(Civil)
(Electrical)
(Mechanical)
School of Engineering and
Technology

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the craftsman and the engineer at the end of the spectrum closest to the engineer.

All curricula in Engineering Technology are accredited by the Engineers' Council for Professional Development. These include the Civil Engineering Technology, Electrical Engineering Technology, and Mechanical Engineering Technology curricula.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Chem 140a	Chemistry	-	4
GSE	Social Science (select)	3	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE 118	Health (select)	2	-
ET 103, 104	Engineering Drawing	3	3
Math 111	Elementary Functions ²	5	-
Math 150	Calculus I	-	4
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	-	3
GSC	Humanities (select)	-	3
GSD 153	Public Communications	2	-
ET 245a	Electrical Systems	-	3
ET 260a,b	Mechanics	4	3
Math 250	Calculus II	4	-
Phys. 203a,b	Physics ³	3	3
Phys. 253a,b	Physics ³	1	1
Engr. 222	Computer Programming	2	-
		<u>16</u>	<u>16</u>

Third and Fourth Year

The last two years of a student's program concentrate on specialized objectives. The student will complete an additional 54 hours (including technical and other electives) in his major specialization plus six more hours of general studies for a total of 124 semester hours.

¹ Student specializing in Civil Engineering Technology will substitute ET 202 for ET 104.

² Math 111 substitutes for GSD Math.

³ Physics 203 and 253 may be counted as GSA credit.

Engineering Technology As A Major

No minor required. No foreign language required.

The amount of transfer credit (including occupational-technical credit) which can be applied to this program depends upon the nature of the credit to be transferred and the specific area requirements. The technology curricula are flexible enough to provide the means whereby graduates of two-year occupational programs can obtain a bachelor of science degree in a minimum length of time.

For the bachelor's degree the recommended guidelines in a specific subject matter area provide for a minimum of 23 semester hours of mathematics and basic science, 23 semester hours of communications, humanities, and social studies, and 45 semester hours of technical science and technical specialty courses.

Employment opportunities for graduates with B.S. degrees in Engineering Technology are excellent. Graduates are employed in the communications industries, electronic and electrical industries; by railroads and consulting firms; by federal, state, and local agencies; in the power and energy industries, in machinery manufacturing companies, and in many other areas.

Dr. Leon Dunning - Chairman
Department Telephone - 618-536-3396
Location - Technology Building, Room D-109

RECOMMENDED PROGRAM

ENGLISH¹
College of Education

The English Education major is designed to give the student a thorough background in composition, language, and literature. The various forms of English, American and world literature, contemporary and historic, are studied. The undergraduate major is preparatory for teaching at the secondary level, graduate study, or positions requiring effective communication of ideas.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB 300	History of the United States, 1492 to 1877	3	-
GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select) ²	3	3
GSD 101	English Composition	3	-
GSD 117	Expository Writing	-	2
GSD 107	Intermediate Algebra	-	4
GSE	Health and Physical Development	2	-
ED 201	Teacher's Role in Public School Education	-	1
Electives ³		-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB	Social Studies (select) ²	-	3
GSC	Humanities (select) ²	-	3
GSD 153	Public Communication	2	-
GSE 201	Healthful Living	2	-
Eng 209	Introduction to Forms of Literature	3	-
Electives ³		<u>5</u>	<u>6</u>
		<u>15</u>	<u>15</u>

¹See also the program under the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Elective hours should be used in the following ways: (1) students may explore areas of interest; (2) they may select a minor.

English As A Major

The following specific General Studies courses are required for teacher certification (these courses may be completed during the freshman and sophomore years): GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300, History of the United States from 1492 to 1877; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

ENGLISH

Specialization I: Teacher Education¹
College of Liberal Arts

The major in English may be pursued through the College of Liberal Arts or the College of Education if you are considering teaching English in secondary schools as a profession. The program is designed to give the student a thorough background in composition, language, and literature. The various forms of English, American and world literature, contemporary and historic, are studied. The undergraduate major is preparatory for teaching, graduate study, or positions requiring effective communications of ideas.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	Social Science (select) ²	3	3
GSC	Humanities (select) ²	3	-
GSD	English Composition ² and one of 117, 118 or 119	3	2
GSD	Speech (select) ²	-	2
GSD	Math (select) ²	-	4
GSE	Health and Physical Development (select) ²	2	2
Elective ^{2,3}		-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB	Social Science (select) ²	3	-
GSC	Humanities (select) ²	3	3
Eng Lit		3	-
Amer Lit		-	3
Elective ^{2,3}		3	3
Elective ^{2,3}		-	3
		<u>15</u>	<u>15</u>

¹See also the program under the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Elective hours should be used in the following ways: 1) students may explore areas of interest; 2) they may select a minor or satisfy the Liberal Arts college requirement.

English As A Major

The student who wishes to declare English as a concentration should consult the department's director of undergraduate programs as soon as he knows he will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIU-C.

Students interested in this program should make themselves aware of the requirements for entering the Teacher Education Program, explained elsewhere in this text. The Department of English requires a 2.50 G.P.A. in the major and successful ("C" or better) completion of English 300, Introduction to Language Analysis, for recommendation to Unconditional Status in the Teacher Education Program.

Any of the English options may be modified by entry into the departmental honors program.

Dr. Robert Partlow - Chairperson
Department Telephone - 618-453-5321
Location - Faner 2370

RECOMMENDED PROGRAM

ENGLISH

Specialization II: General
Education, Non-Teacher
Education
College of Liberal Arts

This specialization in English is designed for the student who desires a broadly based general education leading to a Bachelor of Arts degree with a concentration in English, American and world literatures, with study in the various forms of literature, contemporary and historic. This specialization is preparatory for graduate study and positions requiring effective communication of ideas, such as in publishing.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
GSD	English Composition ¹ and one of 117, 118 or 119	3	2
GSD	Speech (select) ¹	-	2
GSD	Math (select) ¹	-	4
GSE	Health and Physical Development (select) ¹	2	2
Elective ^{1,2}		-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	3	-
GSC	Humanities (select) ¹	3	3
Eng Lit		3	-
Amer Lit		-	3
Elective ^{1,2}		3	3
Elective ^{1,2}		-	3
		<u>15</u>	<u>15</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Elective hours should be used in the following ways: 1) students may explore areas of interest; 2) they may select a minor or satisfy the Liberal Arts college requirement.

English As A Major

A major goal of this particular specialization is to educate students to read precisely with insight and understanding and to know the history, the artistry, and the humane values of our linguistic and literary heritage.

The student who wishes to declare English as a concentration should consult the department's director of undergraduate programs as soon as he knows he will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIU-C.

Any of the English options may be modified by entry into the departmental honors program.

Dr. Robert Partlow - Chairperson
Department Telephone - 618-453-5321
Location - Faner 2370

RECOMMENDED PROGRAM

ENGLISH

Specialization III: For Those
Intending Graduate Study
College of Liberal Arts

If you have an excellent undergraduate record, a taste for literary analysis and criticism, and a desire to teach young adults rather than adolescents, you might want to consider college teaching as a career. This specialization, which allows a great deal of flexibility in choosing upper-division courses, is specifically designed for the student planning to attend graduate school. The program is designed to give the student a thorough background in composition, language, and literature, both contemporary and historic.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
GSD	English Composition ¹ and one of 117, 118 or 119	3	2
GSD	Speech (select) ¹	-	2
GSD	Math (select) ¹	-	4
GSE	Health and Physical Development (select) ¹	2	2
Elective ^{1,2}		-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	3	-
GSC	Humanities (select) ¹	3	3
Eng Lit		3	-
Amer Lit		-	3
Elective ^{1,2}		3	3
Elective ^{1,2}		-	3
		<u>15</u>	<u>15</u>

¹ To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

² Elective hours should be used in the following ways: 1) students may explore areas of interest; 2) they may select a minor or satisfy the Liberal Arts college requirement.

In addition to the work in the Department of English, all students who choose this particular specialization two years of a foreign language, or equivalency is recommended.

English As A Major

A major goal of this particular specialization is to educate students to read precisely with insight and understanding and to know the history, the artistry, and the humane values of our linguistic and literary heritage.

The student who wishes to declare English as a concentration should consult the department's director of undergraduate programs as soon as he knows he will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIU-C.

Any of the English options may be modified by entry into the departmental honors program.

Dr. Robert Partlow - Chairperson
Department Telephone - 618-453-5321
Location - Faner 2370

RECOMMENDED PROGRAM

ENGLISHSpecialization IV: Creative
Writing

College of Liberal Arts

Students who wish to pursue and refine an interest in literature and language through their creative abilities may choose this specialization. The equivalent of seven courses, beyond the core curriculum required of all English majors, are offered on-campus, culminating in a senior writing project--a directed written project such as a collection of short stories or poems, a novel or a play. All instructors of these courses are people who have published their own creative writing and the major thrust of the work will be toward publication. An alternative to the senior project may be an internship in a publishing firm if appropriate arrangements can be made.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
GSD	English Composition ¹ and one of 117, 118 or 119	3	2
GSD	Speech (select) ¹	-	2
GSD	Math (select) ¹	-	4
GSE	Health and Physical Development (select) ¹	2	2
Elective ^{1,2}		-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	3	-
GSC	Humanities (select) ¹	3	3
Eng Lit		3	-
Amer Lit		-	3
Elective ^{1,2}		3	3
Elective ^{1,2}		-	3
		<u>15</u>	<u>15</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Elective hours should be used in the following ways: 1) students may explore areas of interest; 2) they may select a minor or satisfy the Liberal Arts college requirement.

English As A Major

Students interested in the creative writing specialization are strongly urged to confer with the director of undergraduate programs in English as soon as possible. The unique design of this specialization requires a great deal of advisement and consultation in order to insure that students go through the proper sequence of courses. If possible, transfer students should contact a departmental advisor before their first registration at SIU-C.

Any of the English options may be modified by entry into the departmental honors program.

Dr. Robert Partlow - Chairperson
Department Telephone - 618-453-5321
Location - Faner 2370

RECOMMENDED PROGRAM

ENGLISH

Specialization V: Pre-Professional
College of Liberal Arts

This specialization in English is designed for the student who has interest in refining his composition and language abilities in order to prepare for work in such fields as law, business, government, publishing, etc. The program may be particularly attractive to the pre-law student in its emphasis on language and communication. Courses in literature are included for the refinement of the student's language awareness, especially analysis.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Science (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
GSD	English Composition ¹ and one of 117, 118 or 119	3	2
GSD	Speech (select) ¹	-	2
GSD	Math (select) ¹	-	4
GSE	Health and Physical Development (select) ¹	2	2
Elective ^{1,2}		-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	3	-
GSC	Humanities (select) ¹	3	3
Eng Lit		3	-
Amer Lit		-	3
Elective ^{1,2}		3	3
Elective ^{1,2}		-	3
		<u>15</u>	<u>15</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Elective hours should be used in the following ways: 1) students may explore areas of interest; 2) they may select a minor or satisfy the Liberal Arts college requirement.

English As A Major

The specific goals of this specialization are to educate students to write clearly and effectively, to read with precision and awareness and to refine the student's awareness of the human values of our linguistic and literary heritage and environment.

The student who wishes to declare English as a concentration should consult the department's director of undergraduate programs as soon as he knows he will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIU-C.

Any of the English options may be modified by entry into the departmental honors program.

Dr. Robert Partlow - Chairperson
Department Telephone - 618-453-5321
Location - Faner 2370

RECOMMENDED PROGRAM

FAMILY ECONOMICS AND MANAGEMENT
 (Consumer Services Option)
 Division of Human Development
 College of Human Resources

This specialization prepares students for professional opportunities in consumer affairs in industry and government. Special emphasis is placed on the role of the consumer in the marketplace and the consumer's relationship to private enterprise and government agencies. A key focus of the program is the application of concepts and the critical analysis of problems and issues affecting the consumer's interests and choices.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	-	3
*GSB 202	Introduction to Psychology	-	3
*GSB 211	Contemporary Economy	-	3
GSC	Humanities (select)	3	-
GSD 101 and 117, 118 or 119	English Composition	3	2
GSD	Oral Communication (select)	2	-
GSD 107	Intermediate Algebra	4	-
GSE	Health and Physical Development (select)	1	1
Accounting	(suggested elective)	-	3
Elective		3	-
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	3
*GSB 203	Sociological Perspective	3	-
GSC	Humanities (select)	3	3
GSE	Health and Physical Development (select)	1	1
Electives		3	6
		<u>13</u>	<u>13</u>

Third and Fourth Year

The last two years of a student's program concentrate on specialized objectives and departmental requirements. Emphasis is toward completion of advanced Family Economics and Management courses which include FE&M 240, 330, 340, 341, 350, 370, 445, 494, 499. In addition, students will complete recommended courses in Accounting, Clothing and Textiles, Food and Nutrition, Interior Design, Marketing, and electives chosen from Journalism, Speech, or Radio and Television.

*Required General Studies.

Students develop competencies in resource management and ability to work with and understand consumer problems at all socio-economic levels with regard to housing and equipment and other consumer goods.

Graduates are prepared to work with a social service agency in helping families or to work for utility companies, government (FTC, FDA).

Dr. Michael Zunich - Divisional Executive Officer
 Telephone - 618-453-2069
 Location - Home Economics Building, 4th Floor

RECOMMENDED PROGRAM

FAMILY ECONOMICS AND MANAGEMENT (Family Services Option) Division of Human Development College of Human Resources

This specialization is designed to give students a knowledge and understanding of the family's management and allocation of resources. This option prepares students for employment in public and private welfare agencies, cooperative extensions and local government and other programs. The low-income family is of particular interest in this specialization. Elective courses should reflect the student's personal employment goals. The program is tailored to meet the theoretical as well as applied, concepts in preparing students to serve individuals and families of various ages, physical abilities, and income levels.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 209	Principles of Physiology	3	-
*GSA 202	Introduction to Psychology	-	3
*GSB 203	Sociological Perspective	-	3
GSC	Humanities (select)	3	-
GSD 101 and 117, 118 or 119	English Composition	3	2
GSD	Oral Communication (select)	2	-
GSD 107	Basic College Mathematics	4	-
GSE	Health and Physical Development	1	1
Electives		-	6
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	3
GSB 211	Political Economy	-	3
GSC	Humanities	3	3
GSE	Health and Physical Development (select)	1	1
Electives		9	6
		<u>16</u>	<u>16</u>

Third and Fourth Year

Studies during the third and fourth years emphasize departmental requirements and advance courses in Family Economics and Management. Courses included during the third and fourth years include FE&M 240, 330, 340, 350, 370, 494, 499. In addition, students will take courses in Child and Family, Clothing and Textiles, Food and Nutrition, and Social Welfare.

*Required General Studies.

No minor required. No foreign language required.

Program objective is to develop competencies in resource management and ability to work with and understand consumer problems at all socio-economic levels with regard to housing and equipment and other consumer goods.

Dr. Michael Zunich - Divisional Executive Officer
Telephone - 618-453-2069
Location - Home Economics Building, 4th Floor

RECOMMENDED PROGRAM

FAMILY ECONOMICS AND MANAGEMENT
(Housing Option)
Division of Human Development
College of Human Resources

This specialization is designed to give students an understanding of the role of housing as it relates to the individual and to society. It deals with housing-related issues and problems faced by individual consumers, family groups, and society at large. Social and economic aspects will be stressed in examining both the public and private sectors of housing. The program can be tailored to meet the individual employment goals of students through a wide choice of electives.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	-	3
*GSB 202	Introduction to Psychology	-	3
*GSB 211	Contemporary Economy	-	3
GSC	Humanities (select)	3	-
GSD 101 and 117, 118 or 119	English Composition	3	2
GSD	Oral Communication (select)	2	-
GSD 107	Intermediate Algebra	4	-
GSE	Health and Physical Development (select)	1	1
Electives		3	3
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	3	3
*GSB 203	Sociological Perspective	3	-
GSC	Humanities (select)	3	3
GSE	Health and Physical Development (select)	1	1
Electives		3	6
		<u>13</u>	<u>13</u>

Third and Fourth Year

Emphasis is placed on courses in Family Economics and Management such as FE&M 240, 330, 340, 341, 350, 370, 420, 430, 445, 494, 499. In addition, students will take courses in Child and Family and Sociology.

Dr. Michael Zunich - Divisional Executive Officer
Telephone - 618-453-2069
Location - Home Economics Building, 4th Floor

RECOMMENDED PROGRAM

FINANCE

(Financial Management Option)
 (Financial Institutions Option)
 College of Business
 & Administration

The financial implications of decisions in both business and government are daily becoming more complex. Within the firm, financial considerations permeate the central decisions of research, engineering, production and marketing. Within governmental activities, sophisticated financial techniques are becoming increasingly important. The financial executive thus takes a key role in the successful management of both business and governmental operations.

The finance curriculum offers two areas of specialization to meet the varied interest of the students: (1) financial management and (2) financial institutions. The financial management program provides the background for a career in the financial operations of business firms and public institutions. The financial institutions specialization is designed for those interested in the operations of financial intermediaries and financial markets.

First Year

		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	6
GSC	Humanities (select) ¹	6	3
GSD 101 & Writing	English Composition	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus	-	4 (5)
		<u>15 (17)</u>	<u>15 (16)</u>

Second Year

		<u>Fall</u>	<u>Spring</u>
*Acct 221, 222	Financial Accounting	3	3
*ADSC 208	Business and Economic Statistics	4	-
*CS 212 or EDP 217	Fortran Programming	-	3
*Econ 214, 215	Economics, Macro and Micro ²	3	3
*GSB 202	Introduction to Psychology	3	-
*GSD 153 or 152	Speech	2 (3)	-
GSE	Physical and Health Education ¹	-	2
GS- ---	General Studies Electives	-	4
		<u>15 (16)</u>	<u>15</u>

*Required course for a major in Finance.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Econ 214 or 215 count toward GSB credit.

Finance As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Dr. Donald E. Vaughn

Department Telephone - 618-453-2459

Location - General Classrooms Building, Room 214

RECOMMENDED PROGRAM

FOOD AND NUTRITION

(Dietetics)

Division of Human Development
College of Human Resources

These courses give a strong scientific education to those interested in becoming dietitians in hospitals, college dormitories, industrial plants, health clinics, laboratories, or public health and welfare organizations. They meet the requirements of the American Dietetics Association.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Biology	3	-
*GSB 202	Psychology	-	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 152	Speech or Alternate	-	2
GSE	Health and Physical Development	1	-
*Chem 140a	Organic and Inorganic Chemistry ²	-	4
*C&F 237	Child Development	-	3
*F&N 100	Fundamentals of Nutrition	3	-
*F&N 156	Fundamentals of Foods	3	-
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 209	Physiology	3	-
*GSB 211	Economics	3	-
*GSB 104	Anthropology	-	3
GSC	Humanities (select) ¹	-	3
*GSD 118	Technical Report Writing	2	-
*GSD 107	Intermediate Algebra	-	4
GSE	Health and Physical Development	2	1
*GSD 112	Basic Concepts - Statistics ³	2	1
*Chem 140b	Organic and Biological Chemistry	-	4
*F&N 256	Science of Food	3	-
		<u>15</u>	<u>15</u>

Note: Additional specific GS course required. GSB 203 Sociology

Third and Fourth Year

The last two years of a student's program concentrates on nutrition, food service systems, diet therapy, and experimental foods.

*Required courses for a major in Food and Nutrition (Dietetics).

¹A minimum of 9 semester hours representing three different departments/disciplines required. Within Areas A, B, and C -- a total of 30 semester hours is required.

²Chemistry 140a counts as GSA credit.

³May substitute EDP 107 Electronic Data Processing Concepts.

Food And Nutrition As A Major

Very close faculty-student counseling; on-going research program; outstanding faculty; and an active student council are provided.

No minor or foreign language is required.

The Department maintains close contact with employers and assists students in finding internships, traineeships, and permanent positions.

Dr. Michael Zurich, Divisional Executive Officer

Telephone - 618-453-3195

Location - Home Economics Building, Room 207

RECOMMENDED PROGRAM

FOOD AND NUTRITION
(Foods in Business)
Division of Human Development
College of Human Resources

These courses are for students who desire to enter the business fields as home service representatives for utility companies, as demonstrators for manufacturers, or for other educational, experimental, and promotional work with household equipment and foods.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Biology	3	-
*GSB 202	Psychology (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 152	Speech or Alternate	-	2
GSE	Health and Physical Development	-	4
*Chem 140a	Inorganic and Organic Chemistry ²	-	4
*FN 100	Fundamentals of Nutrition	2	-
*FN 156	Fundamentals of Foods	3	-
		<u>14</u>	<u>16</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 209	Physiology	3	-
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	-	3
GSD 107	Intermediate Algebra ³	-	4
GSD 117, 118, or 119	English	-	2
*Acct 210	Accounting	3	-
*Chem 140b	Organic and Biological Chemistry	-	4
*FN 256	Science of Food	3	-
Elective		2	-
		<u>14</u>	<u>16</u>

Third and Fourth Year

The last two years of a student's program concentrates on food and nutrition, family economics and management, marketing, and radio-television.

*Required courses for a major in Food and Nutrition (Foods in Business).

¹A minimum of 9 semester hours representing three different departments/disciplines required. Within Areas A, B, and C -- a total of 30 semester hours is required.

²Chemistry 140a counts as GSA credit.

³May also take 4 hours from GSD 113-2 and either GSD 110-2 or 112-2.

Food And Nutrition As A Major

Very close faculty-student counseling; on-going research program; outstanding faculty; and an active student council are provided.

No minor or foreign language is required.

The Department maintains close contact with employers and assists students in finding internships, traineeships, and permanent positions.

Dr. Michael Zunich, Divisional Executive Officer

Telephone - 618-453-3195

Location - Home Economics Building, Room 207

RECOMMENDED PROGRAM

FOOD AND NUTRITION
 (Food and Lodging Systems
 Management)
 Division of Human Development
 College of Human Resources

These courses prepare students for positions as food systems managers for restaurants, hotels, school food service, public and private lodging facilities, airlines, industrial feeding, resorts, institutions, hospitals and clubs. They meet the requirements as set forth by industry, the Council of Hotel, Restaurant, and Institutional Education, and the National Restaurant Association. Through this program in the hospitality field, transfer students from community colleges also will be able to complete their baccalaureate degrees.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Biology	3	-
*GSB 202	Psychology (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 152	Speech or Alternate	-	2
GSE	Health and Physical Development	2	2
*Chem 140a	Inorganic and Organic Chemistry ²	-	4
*FN 100	Fundamentals of Nutrition	2	-
*FN 156	Fundamentals of Foods	-	3
		<u>13</u>	<u>17</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 209	Physiology	3	-
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	-	3
GSD 107	Intermediate Algebra ³	-	4
GSD 117, 118, or 119	English	2	-
*Acct 221	Accounting I	3	-
*Acct 222	Accounting II	-	3
*Fin 271	Business Law I	3	-
*FN 256	Science of Food	-	3
		<u>14</u>	<u>16</u>

Third and Fourth Year

The last two years of a student's program concentrates on courses in food service systems, administrative sciences, and marketing.

*Required courses for a major in Food and Nutrition (Food and Lodging Systems Management).

¹A minimum of 9 semester hours representing three different departments/disciplines required. Within Areas A, B, and C — a total of 30 semester hours is required.

²Chemistry 140a counts as GSA credit.

³May also take 4 hours from GSD 113-2 and either GSD 110-2 or 112-2.

Food And Nutrition As A Major

Very close faculty-student counseling; on-going research program; outstanding faculty; and an active student council are provided.

No minor or foreign language is required.

The Department maintains close contact with employers and assists students in finding internships, traineeships, and permanent positions.

Dr. Michael Zunich, Divisional Executive Officer
 Telephone - 618-453-3195
 Location - Home Economics Building, Room 207

RECOMMENDED PROGRAM

FOOD AND NUTRITION
(Food and Nutrition Science)
Division of Human Development
College of Human Resources

These courses give a strong scientific education to those interested in preparing for graduate study in food, nutrition or related discipline; for research in university, industrial or governmental laboratories; or for educational and promotional work in industry or public health organizations.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Biology	3	-
*GSB 202	Psychology (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 152	Speech or Alternate	-	2
GSE	Health and Physical Development	-	2
*FN 100	Fundamentals of Nutrition	2	-
*FN 156	Fundamentals of Foods	3	-
*FN 256	Science of Food	-	3
Math 110a	College Algebra and Trigonometry ³	-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 209	Physiology	3	-
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	-	3
GSD 117, 118, or 119	English	2	-
Math 110b	College Algebra and Trigonometry ³	2	-
GSE	Health and Physical Development	1	1
*Chem 222a	Introductory Chemistry ²	4	-
*Chem 222b	Chemistry	-	4
*Psyc 211	Research Methods	-	4
		<u>15</u>	<u>15</u>

Third and Fourth Year

The last two years of a student's program concentrate on chemistry, nutrition, and microbiology.

*Required courses for a major in Food and Nutrition (Food and Nutrition Science).

¹A minimum of 9 semester hours representing three different departments/disciplines required. Within Areas A, B, and C -- a total of 30 semester hours is required.

²Chemistry 222a counts as GSA credit.

³Math 110a and 110b counts as GSD 107 credit.

Food And Nutrition As A Major

Very close faculty-student counseling; on-going research program; outstanding faculty; and an active student council are provided.

No minor or foreign language is required.

The Department maintains close contact with employers and assists students in finding internships, traineeships, and permanent positions.

Dr. Michael Zunich, Divisional Executive Officer
Telephone - 618-453-3195
Location - Home Economics Building, Room 207

RECOMMENDED PROGRAM

FOREIGN LANGUAGES (TEACHING)

(French, German, Latin,
Russian, Spanish)
College of Education

Major concentrations leading to the Bachelor of Science degree are offered in French, German, Latin, Russian, and Spanish. Courses are also offered in Chinese, Classical Greek, Italian, Portuguese, Serbo-Croatian, and Vietnamese. (Serbo-Croatian and Vietnamese are offered in cooperation with the Department of Linguistics, etc.). Programs offered in foreign languages can be preparatory for graduate study, teaching, or other positions requiring the ability to speak, read, understand, and interpret foreign languages. The federal government provides opportunities for individuals with such skills.

Many graduates with foreign language skills can find interesting opportunities with private industry, foreign news bureaus, airlines, and travel agencies as well. In addition, university and research institute libraries, and social work agencies offer varied work situations for skilled people with foreign language facility.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB 300	History of U. S. 1492-1877	3	-
GSB 202	Introduction to Psychology	-	3
GSD 101	English Composition	3	-
GSD 107	Intermediate Algebra	-	4
GSD 117	Expository Writing	-	2
GSE	Health and Physical Development (select) ¹	2	-
FL ³	Elementary French, German, Spanish, or Russian	4	-
FL	Continue above	-	4
ED 201	Teacher's Role in Public School Education	-	1
		15	14
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	-	3
GSC	English elective in Humanities (select) ¹	3	-
GSC	Humanities (select) ¹	2	3
GSD 153	Public Communication	-	2
GSE 201	Healthful Living	2	-
FL	Intermediate French, German, Russian, or Spanish	4	-
FL	Intermediate Continued	-	4
Elective		2	-
		16	15

¹Refer to section General Studies for the Transfer Student.

²Courses required for certification include GSB 202, GSB 212 or GSB 300, GSD 101, GSD 117, or 118, or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, one additional English course from GSC, GSD, or department.

³If one full year of some language is taken, 4 hours may substitute in area GSC.

Language As A Major

Students interested in majoring in any of the offered languages should be aware of the requirements for entrance into the Formal Teacher Education Program. (See Admission Procedures for the Transfer Student.)

No minor is required. Minors are available in Chinese, Greek, Latin, East Asian Civil, Italian, and Japanese.

Graduate degrees are available.

Chief Academic Advisor

Telephone - 618-536-2329

Location - Wham Building, Room 108

Dr. Eugene Timpe, Chairperson, Foreign Languages

Telephone - 618-536-5577

Location - Faner 2166

RECOMMENDED PROGRAM

FORESTRY
(Forest Environmental Assessment)
School of Agriculture

The forest ecology option provides training in the assessment of the impact of forestry practices on the environment. Graduates of this program, after assessing alternative forest practices, are able to prescribe procedures for best preserving a healthy forest ecosystem.

This option features, during the summer following the junior year, a special field study course in which case studies are utilized to illustrate the preparation of environmental impact statements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Bot 200 & 201 ¹	General Botany with Lab	4	-
Chem 140a & b ¹	Inorganic/Organic	4	4
Zool 118	General Zoology	-	4
GSC	Select ²	3	3
GSD 101	English Composition	3	-
Math 140 ³	Calculus	-	4
GSE	Select ²	1	2
For 200	Introduction to Forestry	1	-
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Biol 307 ¹	Environmental Biology	3	-
Ag 204	Ag Economics	3	-
GSB	Sociology or substitute	3	-
GSC	elective	3	-
GSD 153	Speech	-	3
Math 283 ³	Statistics	-	3
For 201 & 202	Dendrology with Lab	4	-
For 240	Soil Science	-	4
GSB 212	Government	-	4
GSD 118	Technical Writing	-	2
		<u>16</u>	<u>16</u>

Third and Fourth Year

Students concentrate on courses in forestry and associated areas to gain the competence required to analyze and assess the environmental impact of forest management systems. Field work in environmental impact assessments is included.

¹Satisfies GSA requirements.

²To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Studies for the Transfer Student.

³Satisfies GSD requirements.

⁴Satisfies GSB requirements.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Departmental Telephone - 618-453-3341

Department Location - Agriculture Building

RECOMMENDED PROGRAM

FORESTRY
(Forest Resources Management
Option)
School of Agriculture

Foresters are essential people in this era of environmental awareness. The forester is responsible for protecting and preserving our country's proudest heritage - nearly 750,000,000 acres of forestland. The forester must supply materials to the forest products industry, a 30 billion dollar giant with 1,500,000 employees.

The forester has an enormous task. He must make the forest grow and see that forests are wisely used. The forester appreciates the beauty, physical and spiritual, of the outdoors. He must be competent in technical forestry skills, comprehend the functioning of the forest ecosystem, and yet be aware of the social influences and needs of the people. The forester is a decision maker of the top order.

The program in forest resources management includes instruction leading to careers in forest management and production, multiple-use resource management, and the forest products industries. The specialization includes areas of study recommended by the Society of American Foresters. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and preserving our wildlands heritage. A five-week session (Field Study) is required after the junior year to give the student practical field experience.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Bot 200 & 201 ¹	General Botany with Lab	4	-
Chem 140a & b ¹	Inorganic/Organic	4	4
Zool 118 ¹	General Zoology	-	3
GSC	Select ²	-	3
Math 140 ³	Calculus	-	4
GSD 101	English Composition	3	-
GSE 101A	Swimming	1	-
GSE	Select ²	1	-
For 200	Introduction to Forestry	1	-
		14	14
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Biol 307 ¹	Environmental Biology	3	-
Ag 204	Ag Economics	-	3
GSB	Sociology or substitute	3	-
GSB	Political Science or substitute	-	3
GSC	Select ²	-	3
GSD 118	Technical Writing	2	-
GSD 153	Public Communication	-	2
Math 283 ³	Statistics	3	-
For 201 & 202	Dendrology with Lab	4	-
For 240	Soil Science	-	4
		15	15

Third and Fourth Years

Study is concentrated in a series of forestry and related areas which enable the student to develop professional competencies in the management of forest resources. Students gain experience with field applications of professional skills during a five week early summer session immediately following the junior year.

¹Satisfies GSA requirements.

²To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Studies for the Transfer Student.

³Satisfies GSD requirements.

⁴Satisfies GSB requirements.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Departmental Telephone - 618-453-3341, Department Location - Agriculture Building

RECOMMENDED PROGRAM

FORESTRY

(Forest Science Specialization)
School of Agriculture

The forest science option is intended for students who plan to enter a graduate program in forestry upon completion of the baccalaureate program. The student and his advisory committee, consisting of two Department of Forestry faculty members, plan an individualized program to meet the student's educational and professional goals. The program of study may be selected from any subject within the competence of the Forestry Department faculty.

Admission to the program is limited to students with a grade point average of 4.0 or above (on a 5.0 = A scale) and the student must maintain a 4.0 or above average to remain in the program.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Bot 200 & 201 ¹	General Botany with Lab	4	-
Chem 140a & b ¹	Inorganic/Organic	4	4
Zool 118 ¹	General Zoology	-	3
GSC	Select ²	-	3
Math 140 ³	Calculus	-	4
GSD 101	English Composition	3	-
GSE	Select ²	2	1
For 200	Introduction to Forestry	<u>1</u>	<u>-</u>
		14	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Biol 307 ¹	Environmental Biology	3	-
GSB	Sociology or substitute	3	-
GSB	Political Science or substitute	-	3
GSC	Select ²	3	3
GSB	Select ²	-	3
GSD 117/118/119	Writing	2	-
GSE	Select ²	-	1
For 201 & 202	Dendrology with Lab	4	-
For 240	Soil Science	<u>-</u>	<u>4</u>
		15	16

Third and Fourth Year

There are four additional forestry courses which are required during the third and fourth years to complete the professional forestry core. The remainder of the third and fourth years are elective, selected by the student and his committee to satisfy the student's educational and professional goals.

¹Substitutes for GSA requirement.

²To determine what courses may be taken to satisfy general education requirements for this major refer to the section General Studies for the Transfer Student.

³Substitute for GSD requirement.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Departmental Telephone - 618-453-3341

Department Location - Agriculture Building

RECOMMENDED PROGRAM

FORESTRY

(Outdoor Recreation Resource
Management Specialization
Option)
School of Agriculture

The program in outdoor recreation resource management provides interdisciplinary professional training in developing, maintaining and managing forests and wildlands as recreational areas. The courses offered are among those recommended by the National Recreation and Park Association.

A special feature of the outdoor recreation resource management option is the three-week tour through selected sections of the U.S. to study outdoor recreation and park facilities. This tour normally is programmed in August for the summer following completion of the third year in the program.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Bot 200 & 201 ¹	General Botany with Laboratory	4	-
Chem 140a & b ¹	Inorganic/Organic	4	4
GSD 153	Speech	-	2
GSC	Select ²	3	-
GSD 101	English Composition	3	-
GSD 118	Technical Writing	-	2
Math 140 ³	Calculus	-	4
GSE	Select ²	-	2
For 200	Introduction to Forestry	1	-
		15	14
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Rec 300	Intro to Leisure & Rec	-	3
Biol 307 ¹	Environmental Biology	3	-
GSB	Sociology or substitute	3	-
GSB	Political Science or substitute	-	3
GSC	Select ²	3	3
Pol Sci 340	Public Administration	-	3
Math 283 ³	Statistics	3	-
For 201 & 202	Dendrology with Lab	4	-
For 240	Soil Science	-	4
		16	16

Third and Fourth Year

Professional and related courses are emphasized during the junior and senior years to develop competence in management of recreational resources of forested environments. A three week summer tour of outdoor recreation facilities is included.

¹Satisfies GSA requirements.

²To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Studies for the Transfer Student.

³Satisfies GSD requirements.

⁴Satisfies GSC requirements.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Department Telephone - 618-453-3341

Department Location - Agriculture Building

RECOMMENDED PROGRAM

FRENCH¹
College of Liberal Arts

Programs of study leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classical Studies, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish is required to take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	-	3
GSB	Social Science (select) ³	3	3
GSC	Humanities (select) ³	3	-
GSD	English Composition ³ and one of 117, 118, or 119	3	2
Fr 123a,b	Elementary French ⁵	4	4
or			
Fr 190 ²	Review of Elementary French	(5)	-
GSD	Math (select) ³	-	4
GSE	Health and Physical Development (select) ³	2	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	3	3
GSB	Social Science (select) ³	-	3
GSC	Humanities (select) ³	3	-
GSD	Speech (select) ³	2	-
*Fr 201a,b	Intermediate French ⁵	4	4
Fr 220a,b	Intermediate French Conversation ⁵	2	2
Elective ^{3,4}		-	4
		<u>14</u>	<u>16</u>

*Counts in the 36 hour French major requirement.

¹See also the program under the College of Education.

²A review course on the first year level for students who have had two or more years of high school French or equivalent.

³To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

⁴Elective hours should be used in the following ways: 1) students may explore areas of interest, 2) they may select a minor or satisfy the Liberal Arts college requirement.

⁵Proficiency exams can be taken in this course.

French As A Major

A major in French consists of 36 semester hours in courses above the 100 level with a minimum of 14 hours on the 300 level and 14 hours on the 400 level. A minor in French consists of 18 semester hours in courses above the 100 level. French 220a,b-4 is recommended but does not count toward the major or minor.

NOTE: Foreign Language majors must satisfy College of Liberal Arts requirements. Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU-C.

Dr. Eugene Timpe - Chairperson
Department Telephone - 618-536-5571
Location - Faner Bldg, Room 2166

The Department of Geography provides a comprehensive curriculum to undergraduate students. Students may pursue the Bachelor of Science degree in Education or the Bachelor of Arts or the Bachelor of Science degree in Liberal Arts. The Bachelor of Science in Education prepares a student for secondary school teaching.

While students will generally avoid in-depth specialization at the undergraduate level, the program offers a breadth of courses in the field of geography. Students experience course work in economic, urban and regional planning resource management, and physical geography as well as in-depth studies in regional courses such as Illinois, United States and Middle and South America.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 110	Earth Science	3	-
GSA 330	The Atmospheric Environment	-	3
GSB 103	Geography of Man's Environment	3	-
GSC	Humanities (select) ²	3	3
GSD	English Composition ² and one of 117, 118 or 119 (select) ²	3	2
GSD	Mathematics (select) ²	-	4
GSE	Health and Physical Development (select) ²	2	-
GSE 201	Healthful Living	-	2
ED 201	The Teacher's Role in Public School Education	1	-
		15	14
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSA 222	Earth Minerals Resources	-	3
GSB 212 or 300	Introduction to American Government and Politics or History of U.S.	3	-
GSC	Humanities (select) ²	3	-
GSD 153	Speech (select) ²	-	2
Geog 302	Physical Geography	-	3
Geog 310	Cartography	3	-
Elective ^{2,3}		4	4
		16	15

¹See also the program under the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. The following specific General Studies courses are required for teacher certification (these courses may be completed during the freshman or sophomore years): GSB 202, Introduction to Psychology; GSD 212, Introduction to American Government and Politics or GSB 300, History of the United States from 1492 to 1877; GSD 101, English Composition; GSD 117, 118, or 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 110-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

³Elective hours should be used in the following ways; (1) students may explore areas of interest; (2) they may select a minor.

Geography As A Major

The Department of Geography has an abundance of resources to supplement its instructional program. Morris Library contains over 100,000 maps used by geography majors in research and training. The maps include special regional displays as well as topographic maps.

The department also maintains a cartographic laboratory where students obtain training in map construction and preparation. The laboratory is an integral part of geographic research studies as well as spatial studies.

Climatological and meteorological facilities are maintained by the department and staff who are involved in weather studies and research. The resources are used by students in their climatology and meteorology courses.

Finally, the area of Southern Illinois provides a natural laboratory for geography students. The diversity in physical landforms and geomorphology, economic and cultural environments provides excellent conditions for students pursuing in-depth studies in Southern Illinois.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

Dr. David Christensen - Chairman
Departmental Telephone - 618-536-3376
Location - 4520 Faner Building

RECOMMENDED PROGRAM

GEOGRAPHY

College of Liberal Arts
(Bachelor of Arts)¹
(Bachelor of Science)¹

The Department of Geography provides a comprehensive curriculum for undergraduate students. Students may pursue the Bachelor of Arts or the Bachelor of Science degree in Liberal Arts or the Bachelor of Science degree in Education. Programs for the Liberal Arts degree are oriented toward graduate work or industrial and governmental careers. The Bachelor of Science in the Education degree program prepares a student for secondary school or junior college teaching.

While students will generally avoid in-depth specialization at the undergraduate level, the program offers a breadth of courses in the field of geography. Students experience course work in economic, urban and regional planning resource management, and physical geography as well as in-depth studies in regional courses covering Illinois, U.S., and Middle and South America.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB 103	Geography of Man's Environment ⁴	3	-
GSC	Humanities (select) ²	3	3
GSD	English Composition ² and one of 117, 118 or 119	3	2
GSD	Math (select) ²	-	4
GSE	Health and Physical Development (select) ²	2	2
		<u>14</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	Social Science (select) ²	3	3
GSC	Humanities (select) ²	3	-
GSD	Speech (select) ²	-	2
Geog 310	Cartography	-	3
Geog 302	Physical Geography	-	3
Elective ^{2,3}		4	4
Elective ^{2,3}		-	4
		<u>16</u>	<u>16</u>

¹30-32 hours for a B.S. or B.A. in the College of Liberal Arts. 32-34 hours for a B.S. in College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Elective hours should be used in the following ways: 1) students may explore areas of interest; 2) they may select a minor or satisfy the Liberal Arts college requirement.

⁴Required by department.

Geography As A Major

The Department of Geography has an abundance of resources to supplement its instructional program. Morris Library contains over 100,000 maps used by geography majors in research and training. The maps include special regional displays as well as topographic maps.

The department also maintains a cartographic laboratory where students obtain training in map construction and preparation. The laboratory is an integral part of geographic research studies as well as spatial studies.

Climatological and meteorological facilities are maintained by the department and staff who are involved in weather studies and research. These resources are used by students in their climatology and meteorology courses.

Finally, the area of southern Illinois provides a natural laboratory for geography students. The diversity in physical landforms and geomorphology, economic and natural resources, and cultural environment provide excellent conditions for students pursuing in-depth studies in southern Illinois.

Dr. David Sharpe - Chairperson
Department Telephone - 618-536-3375
Location - 4520 Faner Building

RECOMMENDED PROGRAM

GEOLOGY

College of Science
(Bachelor of Science)
(Bachelor of Arts)

Geology is the science of the earth. It deals with earth materials, processes and history. Both field and laboratory studies are important aspects of geological work. Employment opportunities for geologists are found within the petroleum, coal and other mining industries, state and federal geological surveys, other minerals-related industries, private and public organizations concerned with the development of water resources, engineering firms, and government agencies concerned with planning, land use, geologic hazards, construction, and land reclamation. Many geologists become teachers at a variety of levels from grade school to college. The Department of Geology at SIU can provide students with sound, broad training in geology.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Geol 220	Physical Geology ¹	3	-
Geol 221	Historical Geology	-	3
GSD 101	English Composition	3	-
GSD 117 or 118	English Composition or Technical Writing	-	2
Math 110	Elementary Functions and Coordinate Geometry ¹	3	2
Chem 222	Introduction to Chemical Principles ¹	4	4
GSB	Social Studies	-	3
GSE	Health and Physical Development	1	1
		<u>14</u>	<u>15</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Phys 203, 253 or 205, 255	College Physics or University Physics ¹	4	4
FL	German, Russian or French recommended ¹	4	4
GSD 153	Speech	2	-
GSC	Humanities	-	3
GSE	Health and Physical Development	1	1
Geol 310	Mineralogy ²	4	-
or		or	
Math 150	Calculus I	4	-
Geol 374	Geomorphology ²	-	3
or			or
GSB	Social Studies	-	3
		<u>15</u>	<u>15</u>

Third and Fourth Year

The last two years of a student's program allow some concentration on specific professional objectives. Students in the Bachelor of Arts degree program would take geology courses, biology courses, social studies, humanities and a large number of elective courses. Students in the Bachelor of Science degree program would take some additional social studies and humanities, biology courses, required geology courses and geology electives, science or technology electives and free electives. Students are encouraged to take independent field and laboratory research problems in their senior year.

¹These courses can be substituted for General Studies courses and should be taken instead of General Studies-type courses.

²If more advanced geology courses such as mineralogy and geomorphology are not offered at your school, take calculus, social studies, humanities or a good botany or zoology course instead. Our program is designed so that a transfer student can easily finish the geology curriculum in two years provided the student has taken most of the specified courses in chemistry, physics, foreign language or mathematics.

Geology As A Major

Students in geology can work toward a Bachelor of Arts or a Bachelor of Science degree. The Bachelor of Science curriculum is recommended for those planning to pursue graduate studies or a professional career in geology. A summer field course in the Rocky Mountains is required for the B.S. degree and is strongly recommended for the B.A. degree. This course is normally taken between the junior and senior years. The Department of Geology has appreciable holdings of modern geologic laboratory and field equipment. Students are permitted to utilize this equipment in courses and are encouraged to use it in independent study projects. With few exceptions, classes for geology majors tend to be small, and students have the opportunity for close contact with the faculty and receive considerable individual attention both within and outside the classroom. The Department assists students in finding suitable graduate programs or jobs in geology and related areas.

Russell R. Dutcher - Chairman
Department Telephone - 618-453-3351
Location - Parkinson Laboratory, Room 108

RECOMMENDED PROGRAM

GERMAN¹
College of Liberal Arts

Programs of study leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classical Studies, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish is required to take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	-	3
GSB	Social Science (select) ³	3	3
GSC	Humanities (select) ³	3	-
GSD	English Composition ³ and one of 117, 118, or 119	3	2
Ger 126a,b	Elementary German ⁵	4	4
GSE	Health and Physical Development (select) ³	2	-
GSD	Math (select) ³	-	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	3	3
GSB	Social Science (select) ³	-	3
GSC	Humanities (select) ³	3	-
GSD	Speech (select) ³	2	-
*Ger 201a,b	Intermediate German ⁵	4	4
GSE	Health and Physical Development (select) ³	2	-
Elective ^{3,4}		-	4
		<u>14</u>	<u>14</u>

*Counts in the 36 hour German major requirement.

¹See also the program under the College of Education.

²First course in a two year sequence designed for students in other fields who want to learn translation skills.

³To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

⁴Elective hours should be used in the following ways: 1) students may explore areas of interest, 2) they may select courses to satisfy Liberal Arts requirements.

⁵Proficiency exams can be taken in this course.

German As A Major

A major in German consists of 36 semester hours in courses above the 100 level with a minimum of 12 hours on the 300 level and 12 hours on the 400 level with at least one language course and one literature course. A minor in German consists of 18 semester hours in courses above the 100 level. At least one course in the history of Germany or Central Europe is recommended for all students majoring in German. FL 436, Methods in Teaching Modern Foreign Languages, is also recommended.

NOTE: Foreign Languages majors must satisfy College of Liberal Arts requirements. (See page 48.) Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU-C.

Dr. Eugene Timpe - Chairperson
Departmental Telephone - 618-536-5571
Location - Faner Building, Room 2166

RECOMMENDED PROGRAM

HEALTH EDUCATION
College of Education

The Department of Health Education offers two specializations within the health education major and three programs of minimal professional preparation. The two specializations are:

1. Health Education in Secondary Schools. For those planning to teach or supervise health education in the secondary schools.
2. Health Education in Elementary Schools. For those planning to teach or supervise health education in the elementary schools.

The three minimal professional preparations are:

1. Health Education in Secondary Schools. For those certified to teach in Illinois secondary schools who wish minimal preparation to teach health education.
2. Health Education in Elementary Schools. For those certified to teach in Illinois elementary schools who wish minimal preparation to teach health education.
3. Driver Education. For those planning to teach driver education in Illinois secondary schools.

These specializations in general, constitute minimal preparation for the positions listed. Consequently, all candidates are strongly urged to complete additional work in the field.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD	Mathematics (select) ¹	-	4
GSE 201	Healthful Living	-	2
GSE	Health and Physical Development (select) ¹	1	-
Educ 201	Teacher's Role in Public School Education	-	1
Electives		3	-
		16	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB 300 or 212	History of U.S. or American Government	3	-
GSB	Social Science (select) ¹	-	3
GSC	English Elective in Humanities (required)	3	-
GSD	Speech (select) ¹	-	2
GSE	Health and Physical Development	1	-
Electives		8	7
		15	15

¹Refer to the section General Studies for the Transfer Student.

²Specific General Studies courses listed are required for Teacher's Certification.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

Dr. Donald Boydston - Chairman
Telephone - 618-453-2777
Location - Arena, Room 126

RECOMMENDED PROGRAM

HISTORY¹
College of Education

The history major consists of 32 semester hours. From this six courses must be evenly distributed over either two or three fields chosen from American, European, or Latin American/African history offerings; i.e., either two courses in each of the three fields or three courses in each of two of the three fields. The student must also complete a total of three courses at the 400 level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB 202	Introduction to Psychology	3	-
GSB 300	History of U. S. 1492-1877	-	3
GSC	Humanities (select) ²	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select) ²	-	2
GSD 153	Public Communication - Speech	-	2
GSE	Health and Physical Development Activity	1	-
GSE 201	Healthful Living	-	2
ED 201	Teacher's Role in Public School Education	-	1
Hist 205	History of Western Civilization	3	-
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	History of U. S. 1877 to Present	3	-
GSB	Social Studies (select) ²	-	3
GSC	English Elective in Humanities (select) ²	3	-
GSD	Math (select) ²	-	4
GSE	Health and Physical Development Activity	1	-
Hist	Electives	6	9
		<u>16</u>	<u>16</u>

¹See also the program under the College of Liberal Arts.

²Refer to the section General Studies for Transfer Students.

³Refer to the Undergraduate Catalog for specific major requirements.

History As A Major

To include the following required courses: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300, History of the United States 1492 to 1877; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental).

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

HISTORY¹
College of Liberal Arts
(Bachelor of Arts)

The history major consists of 32 semester hours. From this, six courses must be evenly distributed over either two or three fields chosen from American, European, or Latin American/African history offerings; i.e., either two courses in each of the three fields or three courses in each of two of the three fields. The student must also complete a total of 9 semester hours at the 400 level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
*Hist	Western Civilization	3	3
GSC	Humanities (select) ²	-	3
GSD	English Composition ² and one of 117, 118 or 119	3	2
GSD	Speech (select) ²	2	-
GSD	Math (select) ²	4	-
GSE	Health and Physical Development (select) ²	2	-
Elective ^{2,3}		-	4
		<u>14</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
*GSB 300, 301	History of the U.S.	3	3
GSB	Social Science (select) ²	3	3
GSC	Humanities (select) ²	3	3
GSE	Health and Physical Development (select) ²	2	-
Elective ^{2,3}		-	4
		<u>14</u>	<u>16</u>

*Counts in the 32 hour History major requirement.

¹See also the program under the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Elective hours should be used in the following ways: (1) students may explore areas of interest in order to select a minor or satisfy the Liberal Arts College requirement; (2) students planning to enter Graduate School may elect to complete two years of a foreign language.

History As A Major

When possible, transfer students should contact the department prior to their first quarter of attendance.

The program in history is an excellent background for future work in law school, government service and other professional areas as well as Graduate Schools. The History Department maintains its own advisement system to help the student design a program which best suits his interests and needs. Exceptional students are invited to participate in a departmental honors program.

Dr. Harry Ammon - Chairman
Departmental Telephone - 618-453-4391
Location - Faner, Room 3374

RECOMMENDED PROGRAM

HOME ECONOMICS EXTENSION
College of Education

This program is designed to meet the needs of students desiring to teach home economics in school departments maintained according to the provisions of the federal vocational acts. A vocational home economics certificate requires a bachelor's degree in home economics from an institution and in a course of study approved for teacher training by the Vocational Division of the United States Office of Education and by the State Board for Vocational Education and Rehabilitation. Southern Illinois University is so approved for training home economics teachers.

These courses prepare a person for positions as Home Advisors, 4-H Club Agents or Advisors, and, with further training, extension specialists.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB 203	The Sociological Perspective	3	-
GSC 101	Introduction to Art	3	-
GSD 107	Intermediate Algebra	4	-
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE	Health and Physical Development	-	2
F&N 100	Fundamentals of Nutrition	3	4
Chem 140a	Survey of Chemistry	-	4
C&T 127a	Clothing Construction	-	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select) ¹	3	3
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	-	3
C&T 227	Creative Pattern Adaption	-	2
F&N 156	Fundamentals of Foods	3	-
F&N 256	Science of Food	-	3
Chem 140b	Survey of Chemistry	4	-
ID 131	Introduction to Design (Home Furn. and Int.)	-	4
Speech 221	Public Communications II	-	3
		<u>16</u>	<u>18</u>

¹ Refer to section General Studies for the Transfer Student.

Refer to Undergraduate Catalog for departmental requirements and requirements taught via General Studies.

Required courses include the following taught via General Studies, GSB 202, 203, 212, GSC 101, GSD 101, 118, 107, 153, and one additional English GSC, GSD or departmental.

Home Economics Education As A Major

No minor is required. No foreign language required.

Child Development practicum in Nursery school; Home Management practicum; supervised student teaching in an area high school; Field experiences with a Home Economics Extension advisor are available.

Occupational education programs are included as well as emphasis on consumer-homemaking so that graduates qualify for the new curricular emphasis in Illinois High Schools.

Graduate degrees available.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

HOME ECONOMICS TEACHER EDUCATION
College of Education

This program is designed to meet the needs of students desiring to teach home economics in school departments maintained according to the provisions of the federal vocational acts. A vocational home economics certificate requires a bachelor's degree in home economics from an institution and in a course of study approved for teacher training by the Vocational Division of the United States Office of Education and by the State Board for Vocational Education and Rehabilitation. Southern Illinois University is so approved for training home economics teachers.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 203	The Sociological Perspective	3	-
GSC 101	Introduction to Art	3	-
GSD 107	Intermediate Algebra	4	-
GSD 101	English Composition	3	-
GSD 117 or 118	Technical or Expository Writing	-	2
GSE 153	Public Communication	-	2
GSE 201	Healthful Living	-	2
Chem 140	Survey of Chemistry ²	-	4
C&T 127a,b	Clothing Construction	-	4
ED 201	Teacher's Role in Public School Education	-	1
F&N 100	Fundamentals in Nutrition	3	-
GSC	Humanities (select) ¹	-	3
		<u>16</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 202	Introduction to Psychology	3	-
GSB 212	Introduction to American Government & Politics	-	4
GSC	English Elective in Humanities (select) ¹	-	3
GSE	Health and Physical Development (select) ¹	-	2
C&F 237	Child Development	-	3
C&F 227	Marriage and Family Living	3	-
FEM 340	Consumer Problems ³	2	-
F&N 156	Fundamentals of Foods	3	-
ID 131	Introduction to Design Home Furn. and Int.	4	-
HEED 306	Home Economics as a Profession	-	1
		<u>18</u>	<u>16</u>

¹Refer to section General Studies for the Transfer Student.

²Substitutes for GSA 106 Chemistry for non-science majors.

³Or GSB 346 Consumer Choice and Behavior.

The following courses are required and taught via General Studies, GSB 202, GSB 203, 212, GSC 101, GSD 101, 117, or 118, 153, 107, GSE 201, 2 hours of physical education activity, and one additional English GSC, GSD or departmental course.

Home Economics Teacher Education As A Major

No minor required. No foreign language required.

Child Development practicum in Nursery school; Home Management practicum; supervised student teaching in an area high school; Field experience with a Home Economics Extension advisor are available.

Occupational education programs are included as well as emphasis on consumer-homemaking so that graduates qualify for the new curricular emphasis in Illinois High Schools.

Graduate degrees available.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

ECOMMENDED PROGRAM

INDUSTRIAL TECHNOLOGY

School of Engineering and
Technology

The Industrial Technology program has as its objective the training of qualified personnel who can develop and direct the manufacture and distribution of products. The program is a balanced curriculum of studies drawn from a variety of disciplines relating to processes, principles of distribution, and concepts of industrial management and human relations. Communication skills, humanities, and social sciences are studied to develop managerial abilities. Knowledge of physical sciences, mathematics, design, and technical skills gained from the program allow the graduate to cope with technical and production problems.

The specialty is designed to provide the necessary education for entry into employment upon completion of the bachelor's degree. Industrial Technology courses contain topics related to the manufacture and distribution of products.

Requirements for a concentration in Industrial Technology include one of four elective areas: Industrial Design, Manufacturing, Supervision and Personnel, or Technical Sales.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 106	Chemistry	-	3
GSB	Social Science (select)	3	3
GSC	Humanities (select)	-	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE	Health and Physical Development (select)	-	2
ET 103, 104	Engineering Drawing	3	3
Math 111	Elementary Functions ¹	5	-
		14	16

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Science (select)	-	3
GSC	Humanities (select)	6	-
GSD 153	Public Communications	-	2
ET 245a	Electrical Systems	-	3
IT 307	Analytical Problems	3	-
IT 308	Processes I	-	4
Phys 203a,b	Physics ²	3	3
Phys 253a,b	Physics Laboratory ²	1	1
Engr 222	Computer Programming	2	-
		15	16

Third and Fourth Year

The last two years of a student's program concentrate on specialized objectives. For transfer students with an Associate degree in an occupational program the required courses are dependent on the student's previous program.

¹Math 111 substitutes for GSD Math.

²Physics 203 and 253 may be counted as GSA credit.

Industrial Technology As A Major

Junior College Occupational and Technical credit (Data Processing, Electronics Technology, Management, Marketing, Mechanical Technology, Metals Technology, Plastics, Transportation, Building Construction, Architectural Drafting to name a few) can be accepted and applicable towards degree requirements. This permits the student to obtain a Bachelor of Science degree in a minimum length of time.

For the bachelor's degree the recommended guidelines are met through the completion of 56 semester hours in the Industrial Technology core, and 19 in the technical specialization.

Employment opportunities for graduates are excellent which permits a wide range of initial job selectivity and more flexibility for later job promotion or job transfer. Federal statistics show that in the present decade, the need for technologists and related workers will exceed that for all other occupational groups. To the technologist, industry offers interesting and rewarding positions with considerable potential for growth and development.

Positions needed in all types of industry are associated with production planning and scheduling, process design, quality control, methods analysis, personnel supervision, material and equipment procurement, facility planning, equipment design, job estimation, technical sales, maintenance supervision, and other production-related functions.

Dr. Leon Dunning - Chairman
Department Telephone - 618-536-3396
Location - Technology Building, Room D-109

RECOMMENDED PROGRAM

INTERIOR DESIGN Division of Comprehensive Planning and Design College of Human Resources

The Division of Comprehensive Planning and Design offers a concentrated course of study in interior design. Through emphasis on professional interior design problems and standards, architectural technology, art, graphic design, business practice, and the history of architecture and interior design, the student receives a comprehensive, inter-disciplinary education in preparation for designing and administrative positions in the fields of residential, commercial, and contract design. The Interior Design program is accredited by the Foundation for Interior Design Education Research.

The profession of interior design is a young and growing one offering unusual opportunities to those with design ability. The environmental needs of a changing society offer challenges which can be met only by imagination, skill, and training. The interior designer, industrial designer, architect, landscape architect, and urban planner often collaborate in planning and creating environmental spaces to serve human needs and aspirations; the interior designer is vital to the team in determining the quality of interior space. An interior design graduate is qualified to practice professionally in an interior design studio, space-planning firm, architectural firm, as well as in industrial design, retail sales, or in institutions, and government agencies. Below is a recommended course of study for undergraduates.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition ¹	3	-
GSD 107	Intermediate Algebra ¹	4	-
GSD	English Composition (select 117, 118 or 119) ¹	-	2
GSC 101	Introduction to Art	-	2
GSE	Health and Physical Development (select)		1
Art	Freehand Drawing ²	2	-
Arch	Architectural Drafting ²	3	3
ID	Basic Design	3	-
ID	Construction Methods & Materials	-	6
		<u>15</u>	<u>15</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSC 202	Introduction to Psychology	-	2
GSC 205	Contemporary Environment	3	-
GS	Select from Areas A,B,C,D,E	2	2
C&T	Textiles	2	-
ID	Rendering	3	-
ID	Construction Methods	3	-
ID	Design Studios	-	7
ID	Furniture & Interior	2	2
	Design History		
ID	Display	-	2
		<u>15</u>	<u>15</u>

Third and Fourth Year

Studies during the final third and fourth years consist of Design Studios and selected courses in Architecture and Advanced Interior Design. Special emphasis is given toward departmental requirements and recommended elective courses. Third and fourth year Interior Design courses include ID 383, 384, 391a,b,c, 394 and 491.

¹Required General Studies courses.

²Examples of work must be presented to, and approved by I.D. Coordinator for Credit Transfer.

General Studies other than those marked "1" are highly recommended for Interior Design majors.

Mr. Paul J. Lougeay, Architect - Coordinator
Telephone - 618-453-3734
Location - Home Economics Building, Room 128c

RECOMMENDED PROGRAM

JOURNALISM
(News Editorial)
(Advertising)
(Photojournalism)
College of Communications and
Fine Arts

Journalism courses are designed to give thorough professional training in both theory and practice in a number of career areas. These include news-editorial and advertising positions on newspapers magazines, industrial publications, cable communications systems, and other news media; in other advertising careers; and in public relations, media management, photo-journalism, teaching, and research.

Undergraduates are urged to enter the Department of Journalism immediately in order that they may obtain the advantage of Journalism Advisement. Students may take JRNL 300 during their second semester in the freshman year. Proficiency in typing is required (30 words per minute) to enter JRNL 310, the first writing course.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
GSD 113	Introduction to Math	2	-
GSD 112	Basic Concepts in Statistics	-	2
GSD 101	English Composition	3	-
GSD 117, 118, 119	Writing (select one) ¹	-	2
GSD 152, 153	Speech or Oral Interpretation (select one) ¹	-	2
GSE	Health and Physical Development (select) ¹	1	1
Electives		3	-
JRNL 300	Mass Media Modern Society	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSE	Health and Physical Development (select) ¹	1	1
*JRNL 370	Principles of Advertising	3	-
*JRNL 310	Writing-Mass Media	-	3
Electives		5	2
		<u>15</u>	<u>15</u>

*Required courses for major in Journalism.

¹See section on General Studies for the Transfer Student.

See also Journalism in College of Education for Teacher Certification requirements.

Journalism As A Major

In addition to the General Studies courses, the academic requirements for a Bachelor of Science Degree in Journalism includes 30-34 hours in journalism course work as approved by the School, 26-30 hours of upperclass electives outside the area of journalism, and 15 hours in a minor area approved by the School. The minor must be declared by the time a student has accrued 90 semester hours.

Two major specializations, news-editorial and advertising, are approved by the professional accrediting agency, the American Council on Education for Journalism.

The advertising specialization. A broad, yet intensive selection of specialized courses prepares the student to enter a wide variety of fields, including sales, copy writing, production, administration, retailing, and agency media and layout.

The news-editorial specialization. In addition to the general requirements of this sequence, the student may elect to take a variety of electives to a concentration of electives in the following areas: community and suburban newspaper journalism, magazine journalism, or telecommunications journalism.

Photo-journalism. This specialization, administered jointly by the School of Journalism and the Department of Cinema and Photography, prepares students to be photographer-reporters, photo editors, and to work in other related positions.

Graduate degrees are available.

Chairman
Departmental Telephone - 618-536-3361
Department Location - Communications Building, North Wing

RECOMMENDED PROGRAM

JOURNALISM¹
College of Education

The School of Journalism at SIU-C is considered one of the finest in the nation. The program is designed to provide thorough training in both theory and practice. Students may choose a variety of specializations which include advertising, community-suburban newspaper, magazine, news and editorial, photo-journalism, and telecommunications, combine these professional options with an opportunity to work on the SIU student newspaper which has a circulation of 18,000 copies per day, and a student is provided with maximum exposure and professional growth.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB 202	Introduction to Psychology	-	3
GSB 212 or 300	American Government and Politics or U.S. History from 1492 to 1877	4	-
GSC	Humanities (select) ²	-	6
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ²	-	2
GSD 107	Mathematics (select) ²	4	-
GSE 201	Healthful Living	2	-
GSE	Activity (select) ²	-	1
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	Social Science (select) ²	-	3
GSC	English elective in Humanities (select) ² (required)	3	-
GSD 153	Public Communication	-	2
GSE	Activity (select) ²	1	-
ED 201	Teacher's Role in Public School Education	1	-
Jrnl 300	Mass Media in Modern Society	3	-
Jrnl 310	Writing for the Mass Media	3	-
Jrnl 370	Principles of Advertising	-	3
Jrnl	Selected by Department	-	7
		<u>14</u>	<u>15</u>

Other Requirements:

Journalism students must demonstrate a working knowledge of typewriting based upon a minimum rate of 30 words per minute. This proficiency must be demonstrated (by proof of a passing grade in a typing course or an examination given by the School of Journalism) before the student registers for Journalism 310.

¹See also the program under the College of Communications and Fine Arts.

²Refer to the section General Studies for the Transfer Student.

Refer to the Undergraduate Catalog for specific major requirements.

Chief Academic Advisor for the College of Education
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

JUNIOR HIGH SCHOOL LANGUAGE ARTS
AND SOCIAL STUDIES
 College of Education

A major in language arts and social studies may be pursued through the Department of Curriculum Instruction and Media. Such a major is designed to prepare individuals for teaching at the junior high school level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB 300	History of U. S. 1492-1877 ³	3	-
GSB 301	History of U. S. 1877 to Present ³	-	3
GSC	Humanities (select) ¹	3	-
GSD 101	English Composition	3	-
GSD 153	Public Communications	2	-
GSD 117	Expository Writing	-	2
GSD 107	Intermediate Algebra	-	4
GSE 201	Healthful Living	-	2
GSE	Health and Physical Development Activity (select) ¹	2	-
ED 201	Teacher's Role in Public School Education	-	1
Elective	World History	-	3
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSA 330	Weather ³	-	3
GSB 212	Introduction to American Government & Politics ³	4	-
GSB 211	Contemporary Economics ³	3	-
GSB 202	Introduction to Psychology	-	3
GSC 200	Literary Experiences in Action ³	3	-
GSC 365	Shakespeare ³	-	3
Pol Sci 213	State and Local Government	-	3
Elective	American and World History	3	3
		<u>16</u>	<u>15</u>

¹Refer to the section General Studies for the Transfer Student.

²Refer to the Undergraduate Catalog for specific major requirements.

³These General Studies courses can be applied toward major requirements.

Junior High School Language Arts and Social Studies As A Major

To include the following required courses: GSA 330, The Atmospheric Environment; GSB 212, Introduction to American Government and Politics; GSB 211, Contemporary Economics; GSB 202, Introduction to Psychology; GSB 300, History of the United States 1492 to 1877; GSB 301, History of the United States 1877 to Present; GSC 365, Shakespeare (or English 471 or 472); GSD 101, English Composition; GSD 117, 118, or 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activity; GSE 201, Healthful Living; and one additional English GSC, GSD or departmental course.

Chief Academic Advisor

Telephone - 618-536-2329

Location - Wham Building, Room 108

Dr. Donald Paige - Chairman

Telephone - 618-453-2239

Location - Wham Building, Room 327

RECOMMENDED PROGRAM

LATIN AMERICAN STUDIES
College of Liberal Arts

Southern Illinois University at Carbondale traditionally has had a strong interest in Latin America. An unusually large number of faculty specialists offer many courses related to that region and the Morris Library contains an outstanding collection of Latin American materials. The University initiated its Latin American Studies program in 1958 to prepare students for careers in business, education and government and to serve others who desired more information about the nations south of the United States. An interdisciplinary program, it includes training in language, the social sciences and humanities. Beyond the minimum core of courses required for the major, maximum flexibility is provided to tailor the curriculum to the needs and interests of the individual student.

Latin American Studies majors also complete a minor or other coherent program (usually 15 to 18 hours) in a standard discipline or career specialty.

The College of Liberal Arts grants the Bachelor of Arts degree in Latin American Studies. The Latin American Studies Advisory Committee supervises the program. Interested students should consult the director for the Latin American Studies major.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Science - Anthropology (select) ¹	3	-
GSB	Social Science - Political Science (select) ¹	-	3
GSC	Humanities (select) ¹	-	3
GSD	English Composition and one of 117, 118 or 119 (select) ¹	3	2
Spanish	140a & 140b ^{3,4}	4	4
GSE	Health & Physical Development ¹	2	2
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science - Economics (select) ^{1,2}	-	3
GSC	Humanities (select) ¹	3	-
GSD	Speech (select) ¹	2	-
GSD	Math (select) ¹	-	4
Spanish	201a & 201b ³	4	4
Elective ⁵		3	-
		<u>15</u>	<u>14</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Recommended but not required.

³Required by major.

⁴Elective hours should be used in the following ways: (1) students may explore areas of interest, (2) they may select a minor or satisfy the Liberal Arts College requirement.

Dr. William Garner - Director
Department of Political Science
Department Telephone - 536-2371
Location - Faner 3178

RECOMMENDED PROGRAM

LINGUISTICS
College of Liberal Arts

The objective of the undergraduate major in linguistics is to provide broad, general training in theoretical and applied linguistics. The major is designed to help the student achieve an awareness of the language systems of the past, an appreciation of his fellow man's modes of communication, and a fundamental understanding of the ever-changing linguistic environment in which he lives. Moreover, the analytical models of linguistics have, since the 1930's, been recognized by other disciplines (notably anthropology, psychology, and sociology) as significant research paradigms; education in linguistics methods trains a student to think analytically, to evaluate hypotheses, and to propose new solutions.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Science (select) ^{1,2}	4	-
GSB	Social Science (select) ^{1,2}	-	3
GSC	Humanities (select) ^{1,2}	3	-
Foreign Lan.	First Year ³	4	4
GSD	English Composition and one of 117, 118 or 119 ¹	3	2
GSD	Math (select) ¹	-	4
		<hr/> 14	<hr/> 16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ^{1,2}	3	-
GSC	Humanities (select) ¹	-	3
Foreign Lan.	Second Year ³	4	4
GSD	Speech (select) ¹	2	-
GSE	Health	-	2
Electives ⁴		3	3
		<hr/> 15	<hr/> 15

¹To determine what courses may be taken to satisfy the general education requirements for this program, see the section, General Studies for the Transfer Student.

²Recommended but not required.

³There is a foreign language requirement: (1) one year of an uncommon or non-Western language, (2) two years of any foreign language. If the language in (2) were uncommon or non-Western, satisfying (2) would automatically satisfy (1). Students planning graduate study in linguistics should take three years of foreign language study. In addition, 4 hours of first year foreign language may substitute in Area C.

⁴Elective hours should be used in the following ways: (1) students may explore areas of interest, (2) they may select a minor or satisfy the Liberal Arts College requirement.

Dr. Patricia Carrell - Chairperson
Departmental Telephone - 618-536-3385
Location - Faner Building, Room 3236

RECOMMENDED PROGRAM

MARKETING
College of Business
& Administration

Marketing consists of the performance of those activities associated with the flow of goods and services from producers to consumers and business users. The program is designed to provide the student with an understanding of the role of marketing in an economic system and in a business organization. Emphasis is upon the development of an analytical approach to the creative solution of marketing problems. Courses have been designed into a variety of sequences aimed at meeting the specific needs and the interests of students. These are: (1) General Marketing Administration, (2) International Marketing, (3) Industrial Marketing, (4) Sales Administration, (5) Promotional Administration, (6) Physical Distribution Administration, and (7) Retail Administration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	6
GSC	Humanities (select) ¹	6	3
GSD 101 & Writing	English Composition	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus	-	4 (5)
		<u>15 (17)</u>	<u>15 (16)</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*Acct 221,222	Financial Accounting	3	3
*ADSC 208	Business and Economic Statistics	4	-
*CS 212 or EDP 217	Fortran Programming	-	3
*Econ 214, 215	Economics, Macro and Micro ²	3	3
*GSB 202	Introduction to Psychology	3	-
*GSD 153 or 152	Speech	2 (3)	-
GSE	Physical and Health Education ¹	-	2
GS- ---	General Studies Elective	-	4
		<u>15 (16)</u>	<u>15</u>

*Required course for a major in Marketing.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Econ 214 or 215 count toward GSB credit.

Marketing As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Flexibility is available due to a limited number of required courses. Emphasis is on developing a program geared to individual students' interests and background.

Dr. Glenn Walters
Department Telephone - 618-453-4341
Location - General Classroom Building, Room 229

RECOMMENDED PROGRAM

MATHEMATICS¹
College of Education

A standard college algebra and trigonometry course is available as one course or as separate courses to incoming freshmen to prepare them for a three semester sequence in calculus and analytic geometry. Most mathematics students will take an introductory linear algebra course while completing the calculus. Then they will select junior level courses from those in algebraic structures, analysis, number theory, geometry, differential equations, and probability.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	4	-
GSB 212 or 300	American Government and Politics or U.S. History 1492 to 1877	-	4
GSC	Humanities (select) ²	3	-
GSD 101	English Composition	3	-
GSD 117 or 118 or 119	Writing (select) ²	-	2
GSE 201	Healthful Living	-	2
*Math 111	College Algebra and Trigonometry	5	-
Math 150	Calculus I	-	4
CS 202	Introduction to Computer Programming	-	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	4	-
GSB	Social Studies (select) ²	-	3
GSB 202	Introduction to Psychology	3	-
GSC	English elective in Humanities (select) ²	-	3
GSC	Humanities (select) ²	3	-
GSD 153	Public Communications	-	2
GSE	Physical Education Activity	1	-
Math 250	Calculus II	4	-
Math 221	Introduction to Linear Algebra	-	3
Math 319	Introduction to Abstract Algebra	-	3
Math 319E	Modern Algebra Applied to Secondary Schools	-	1
ED 201	Teacher's Role in Public Schools	<u>1</u>	<u>-</u>
		<u>16</u>	<u>15</u>

*Approved substitute for GSD Math.

¹See also the program under the College of Liberal Arts.

²Refer to the section General Studies for the Transfer Student.

³Foreign language is not required for the Bachelor of Science degree in Education.

⁴It is recommended that the following courses be completed during the first two years of the student's study: Math 111, 150, 250, 251, 221, Computer Science 202.

⁵For specific major requirements see the Undergraduate Catalog.

Mathematics As A Major

To include the following required courses: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300, History of the United States 1492 to 1877; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental); Math 111, College Algebra and Trigonometry.

Chief Academic Advisor

Telephone - 618-536-2329

Location - Wham Building, Room 108

RECOMMENDED PROGRAM

MATHEMATICS¹
 College of Liberal Arts
 (Bachelor of Arts)

A standard college algebra and trigonometry course is available as one course or as separate courses to incoming freshmen to prepare them for a three semester sequence in calculus and analytic geometry. Most mathematics students will take an introductory linear algebra course while completing the calculus. Then they will select junior level courses from those in algebraic structures, analysis, number theory, geometry, differential equations, and probability.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ^{2,5}	3	-
GSB	Social Science (select) ²	-	3
GSC	Humanities (select) ^{2,4}	-	3
GSD	English Composition ² and one of 117, 118, or 119	3	2
*Math 111	College Algebra and Trigonometry ³	5	-
*Math 150	Elementary Calculus and Analytic Geometry	-	4
*FL	Foreign Language ⁴	4	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ^{2,5}	-	3
GSB	Social Science (select) ^{2,6}	3	3
GSC	Humanities (select) ²	-	3
GSD	Speech (select) ²	2	-
GSE	Health and Physical Development (select) ²	2	-
*Math 250		4	-
*Math 251		-	3
*Math 221		-	3
*CS 202		3	-
		<u>14</u>	<u>15</u>

*Required course for a major in mathematics.

¹See also the program (B.S.) under the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Proficiency exams can be taken in this course. Math 111 is a substitute for GSD Math.

⁴Math majors must complete eight semester hours of one foreign language, four of these hours can be substituted for GSC Humanities.

⁵It is recommended that math majors substitute Physics 205a for three hours of GSA Science.

⁶It is recommended that math majors substitute Economics 214 or 215 for three semester hours of GSC Social Science.

Mathematics As A Major

Students must earn a grade of "C" or higher in mathematics courses numbered 150 or above.

The Department of Mathematics has graduate programs at both the Masters' and Doctors' levels.

Graduates of this program find employment in various organizations which rely on the use of mathematical principle and procedures in phases of their operation or they often take teaching positions. Many industries that hire mathematicians are engineering or science oriented like aircraft and missile, chemical, electrical equipment, fabricated metals, and petroleum industries, but also employers are hiring mathematicians in business and economic related positions to help with managerial decisions. Excellent career opportunities exist in statistical and actuarial work launched from undergraduate mathematics programs, and mathematics graduates are highly valued in MBA (Master of Business Administration) programs.

Honors work available.

Dr. Al Baartmans - Chairperson
 Department Telephone - 618-453-5302
 Location - Neckers Building, Room 363

RECOMMENDED PROGRAM

Mining Technology Specialization
(Bachelor of Science Degree in
Industrial Technology) School of
Engineering and Technology

The world wide energy crisis has created a growing demand for coal and other mining products and the need for technologists and engineers in the mining industry is expected to increase dramatically in the next decade. To help meet this growing demand Southern Illinois University at Carbondale offers courses in mining technology which culminate in a Bachelor of Science degree.

Course Requirements

The program is primarily designed to provide a capstone of subject matter for those students completing programs in mining technology or related areas at community colleges or technical institutes. Courses offered at Southern Illinois University at Carbondale include topics such as coal analysis, coal mining problems, labor relations, materials handling, surveying, motion and time study, quality control, underground and surface mining technology, and others.

The required courses are dependent on the student's academic background and work experience. In general, the baccalaureate degree can be obtained in two academic years after completing an associate degree in mining technology or a related field at a community college or technical institute.

Career Opportunities

Employment opportunities in the mining industry are practically unlimited with many top management positions available for college educated people with mining experience.

Dr. Leon Dunning - Chairman
Departmental Telephone - 618-536-3396
Location - Technology Building, Room D-109

RECOMMENDED PROGRAM

MICROBIOLOGY College of Science (Bachelor of Arts)

Microbiology deals with the study of micro-organisms, including bacteria, viruses, rickettsiae, protozoa, fungi, and yeasts, examining their morphology, classification, growth, reproduction, heredity, biochemistry, ecology, and their relationship to other living organisms including man. The following program of study prepares one for graduate study leading to advanced degrees or for laboratory or teaching positions after the bachelor's degree.

Opportunities for specialized training in diagnostic bacteriology, virology, immunology, genetics, biochemistry and industrial processes are available.

General Studies Requirements

Area A - A minimum of 9 hours representing 3 different departments/disciplines.

Chem 222a-4 substitutes for GSA 106 and 107-4

Phys 203a-3 substitutes for GSA 101-3

Phys 203b-3 substitutes for GSA 202-3

Biol 306, 308, or 309-3 substitutes for GSA 115-3

Biol 305 substitutes for GSA 314-2

Biol 307-3 substitutes for GSA 240-3

Area B - A minimum of 9 hours representing 3 different departments/disciplines.

Area C - A minimum of 9 hours representing 3 different departments/disciplines.

Foreign Language-4 substitutes for GSC-4¹

*Area A, or B, or C -- 3 additional semester hours.

*Note: Within Areas A, B, and C, a total of 30 semester hours is required.

Area D - GSD 101-3 and one of GSD 117-2, 118-2, or 119-2³

GSD Speech or alternate GSD

Math 110a,b or Math 111-5 required

Area E - Any 4 hours.

Major Requirements

First Year

Foreign Language-8²

Chem 222a,b-8

Math 110a,b or 111-5

Micro 301-4 (can be taken
concurrently with Chem 222b

Second Year

Micro 302-3⁵

Any two of Biol 305,⁶
306, 307, 308, 309-6

Chem 344 and 345-6

Chem 346 and 347-5

Phys 203a,b-6

Phys 253a,b-2

Third and Fourth Years - Micro Electives, 25 to 29⁴

¹If a student has completed 8 hours of one language, he may substitute 4 hours in C area.

²College of Science majors fulfill foreign language requirement with 8 hours of one language or equivalent.

³GSD 118 recommended to fulfill College of Science requirement.

⁴Senior level work consisting of 16-20 lecture credits and a minimum of 9 laboratory credits.

⁵Micro 302 is not prerequisite for 400 level courses.

⁶Biol 305 is highly recommended for Microbiology majors.

Microbiology As A Major

A student may direct his career toward such fields as: (1) the clinical and public health laboratory; (2) the food and beverage industries; (3) pharmaceutical industries involving the discovery and production of antibiotics and other therapeutic drugs, the discovery and production of vaccines, possibly effective even against cancer; (4) the soap and detergent industries; (5) agriculture by enriching and maintaining the fertility of the soil and by controlling diseases which ravage our cultivated crops and livestock. Excellent teaching opportunities exist at the university level for the holder of the doctor's degree. A microbiologist planning a teaching career at the secondary school level should acquire a broad background in general biology. In addition to the academic career, high-salaried positions are to be found in many of the local, state, and federal agencies, as well as in industry, by the microbiologist with a good capacity for pure or applied research.

Graduate programs available.

Dr. Maurice Ogur - Department Chairman

Departmental Telephone - 618-536-2349

Departmental Location - Life Science II, Room 131

RECOMMENDED PROGRAM

MUSIC¹
 College of Liberal Arts
 (Bachelor of Arts)

The music major degree program in the College of Liberal Arts is designed to provide a basis for various part time and musically related careers such as church music, music therapy, popular music, private applied teaching, and occupations within the field of music industry and communications. Ordinarily, additional study, comparable to the Bachelor of Music curriculums offered in the College of Communications and Fine Arts, is necessary to qualify for a full time professional career in teaching, conducting, composition, or research.

This music major degree program is established in accordance with the published regulations of the National Association of Schools of Music, of which the School of Music is a member.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB	Social Studies (select) ²	3	3
GSC	Humanities (select) ²	-	3
GSD 101, 117	English Composition; Expository Writing	3	2
GSD 107	Algebra	4	-
GSE	Health and Physical Development (select) ²	1	1
*Mus 102	Survey of Music Literature	-	2
*Mus 140	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
		<u>17</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	Social Studies (select) ²	-	3
GSD 152	Speech	-	2
GSE	Health and Physical Development (select) ²	1	1
For Lang	Foreign Language	4	4
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
*Mus 240	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
		<u>15</u>	<u>17</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Communications and Fine Arts and the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Music 102-2 and 105a-3 substitute for GSC 100-2 and 206-3.

The following courses are required for Teacher Certification: GSB 212 or GSB 300, GSD 101, GSD 117, 118 or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, and one additional course from A, B, or C.

Music as a Major

Credits in one's principal applied field are based on (1) private lessons with a number of the faculty, (2) weekly participations in Studio hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
 School of Music Telephone - 618-453-2263
 Location - Altgeld Hall, Room 105

RECOMMENDED PROGRAM

MUSIC EDUCATION¹

(Music Education - Instrumental
or Choral)
College of Education

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others. To complete the preparation, the School of Music offers Bachelor of Music degree programs with the following specializations: Instrumental Music Education; Choral Music Education; Instrumental performance; Keyboard performance; Vocal performance; Music History-Literature; and Music Theory-Composition.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSD 101, 117	English Composition, Expository Writing	3	2
GSE 201	Healthful Living	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Piano Class ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
*Mus 102	Survey of Music Literature	-	2
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB 212	Government	4	-
GSB 202	Introduction to Psychology	-	3
GSD 107	Algebra	-	4
GSD 152	Speech	-	2
GSE	Health and Physical Development (select) ²	1	1
Ed 201	Teacher's Role in Public School Education	-	1
*Mus 240	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
*Mus 034, 035	Brass Class; WW Class (for Instrumental Music)	1	2
or Mus 030a,b	Piano Class ³ (for choral Music Education)	(1)	(1)
		<u>16</u>	<u>17</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Communications and Fine Arts and the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

⁴The following courses are required for Teacher Certification: GSB 202, Introduction to Psychology, GSB 212 or GSB 300, GSD 101, GSD 117 or 118 or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, plus one additional English course from GSC, GSD or departmental.

Music As A Major

Students interested in this specialization should become aware of the requirements for entering the Formal Teacher Education Program (explained in another section of this text).

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
School of Music Telephone - 618-453-2263
Location - Altgeld Hall, Room 105

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

MUSIC¹

(Music Education - Instrumental
or Choral)
College of Communications
and Fine Arts

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others. To complete the preparation, the School of Music offers Bachelor of Music degree programs with the following specializations: Instrumental Music Education; Choral Music Education; Instrumental performance; Keyboard performance; Vocal performance; Music History-Literature; and Music Theory-Composition.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSD 101, 117	English Composition, Expository Writing	3	2
GSE 201	Health and Physical Development (select) ²	2	1
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Piano Class ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
*Mus 102	Survey of Music Literature	-	2
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB 212	Government	4	-
GSB	Social Sciences (select) ²	-	3
GSD 107	Algebra	-	4
GSD 152	Speech	-	2
GSE	Health and Physical Development (select) ²	1	-
Ed 201	Orientation to Education	-	1
*Mus 240	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
*Mus 034, 035	Brass Class; WW Class (for Instrumental Music)	1	1
or Mus 030a,b	Piano Class ³ (for choral Music Education)	<u>(1)</u>	<u>(1)</u>
		<u>16</u>	<u>16</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Education and the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Students interested in this specialization should become aware of the requirements for entering the Formal Teacher Education Program (explained in another section of this text).

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
School of Music Telephone - 618-453-2263
Location - Altgeld Hall, Room 105

RECOMMENDED PROGRAM

MUSIC¹(Music History-Literature)
College of Communications and
Fine Arts

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others. To complete the preparation, the School of Music offers Bachelor of Music degree programs with the following specializations: Instrumental Music Education; Choral Music Education; Instrumental performance; Keyboard performance; Vocal performance; Music History-Literature; and Music Theory-Composition.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career in musical research and criticism and/or college teaching in these areas.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select) ²	-	3
GSD 101, 107	English Composition; Algebra	3	4
GSE	Health and Physical Development (select) ²	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Class Piano ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSC 152	Speech	-	2
GSD 117	Expository Writing	2	-
GSE	Health and Physical Development (select) ²	1	-
*For Lang	French or German	4	4
*Mus 240	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
*Mus 357a or b	Music History	-	3
		<u>15</u>	<u>15</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Education and the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Music 102-2, 105a-3 and the second semester of foreign language count toward GSC requirements.

³Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
School of Music Telephone - 618-453-2263
Location - Altgeld Hall, Room 105

RECOMMENDED PROGRAM

MUSIC¹
(Instrumental Performance)
College of Communications and
Fine Arts

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others. To complete the preparation, the School of Music offers Bachelor of Music degree programs with the following specializations: Instrumental Music Education; Choral Music Education; Instrumental performance; Keyboard performance; Vocal performance; Music History-Literature; and Music Theory-Composition.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as an instrumentalist and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSC	Humanities (select) ²	-	2
GSD 101, 117	English Composition; Expository Writing	3	2
GSE	Health and Physical Development (select) ²	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Piano Class ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>15</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSC	Social Sciences (select) ²	-	3
GSD 107	Algebra	4	-
GSE	Health and Physical Development (select) ²	1	1
*Mus 240	Applied Music (principal instrument)	4	4
*Mus 030c,d	Class Piano ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
		<u>15</u>	<u>15</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Education and the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Music 102-2 and 105a-3 count toward GSC requirements.

³Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
School of Music Telephone - 618-453-2263
Location - Altgeld Hall, Room 105

RECOMMENDED PROGRAM

MUSIC¹
 (Keyboard Performance)
 College of Communications and
 Fine Arts

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others. To complete the preparation, the School of Music offers Bachelor of Music degree programs with the following specializations: Instrumental Music Education; Choral Music Education; Instrumental performance; Keyboard performance; Vocal performance; Music History-Literature; and Music Theory-Composition.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a keyboard performer and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSE	Social Studies (select) ²	-	3
GSD 101, 117	English Composition; Expository Writing	3	2
*Mus 140	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSC	Humanities (select) ²	-	3
GSD 152, 107	Speech; Algebra	2	4
GSE	Health and Physical Development (select) ²	1	1
*Mus 240	Applied Music (principal instrument)	4	4
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
		<u>15</u>	<u>15</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Education and the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Music 102-2 and 105a-3 count toward GSC requirements.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
 School of Music Telephone - 618-453-2263
 Location - Altgeld Hall, Room 105

RECOMMENDED PROGRAM

MUSIC¹
 (Music Theory-Composition)
 College of Communications and
 Fine Arts

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others. To complete the preparation, the School of Music offers Bachelor of Music degree programs with the following specializations: Instrumental Music Education; Choral Music Education; Instrumental performance; Keyboard performance; Vocal performance; Music History-Literature; and Music Theory-Composition.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a musical composer and/or college teacher of music theory-composition.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSC	Humanities (select) ²	-	2
GSD 101, 117	English Composition; Expository Writing	3	2
GSE	Health and Physical Development (select) ²	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Class Piano ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSC	Humanities (select) ²	-	3
GSD 107	Algebra	4	-
GSE	Health and Physical Development (select) ²	1	1
*Mus 240	Applied Music (principal instrument)	2	2
*Mus 030c,d	Class Piano ³	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
*Mus 280	Beginning Composition	2	2
		<u>15</u>	<u>15</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Education and the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
 School of Music Telephone - 618-453-2263
 Location - Altgeld Hall, Room 105

RECOMMENDED PROGRAM

MUSIC¹
(Vocal Performance)
College of Communications and
Fine Arts

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others. To complete the preparation, the School of Music offers Bachelor of Music degree programs with the following specializations: Instrumental Music Education; Choral Music Education; Instrumental performance; Keyboard performance; Vocal performance; Music History-Literature; and Music Theory-Composition.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a singer and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101, 117	English Composition; Expository Writing	3	2
GSD 107	Algebra	-	4
GSE	Health and Physical Development	2	1
*Mus 140P	Applied Music (voice)	2	2
*Mus 030a,b	Class Piano ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSE	Health and Physical Development (select) ²	1	-
*For Lang	French or German	4	4
*Mus 240P	Applied Music (voice)	4	4
*Mus 030c,d	Class Piano ³	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
		<u>15</u>	<u>15</u>

*Required courses for a major in Music.

¹Music curriculums are also available in the College of Education and the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Music 102-2, 105a-3 and the second semester of foreign language count toward GSC requirements.

³Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Dr. Phillip Olsson - Director
School of Music Telephone - 618-453-2263
Location - Altgeld Hall, Room 105

RECOMMENDED PROGRAM

OCCUPATIONAL EDUCATION
 (Occupational Teaching)
 (Pre-Occupational Teaching)
 (Secondary School Occupational Teaching)
 College of Education

The Department of Occupational Education offers three majors, each leading to the Bachelor of Science in Education degree. Programs include specializations in pre-vocational teaching, secondary occupational teaching, and occupational teaching. The specializations in pre-vocational teaching and secondary occupational teaching lead to entitlement to a Standard High School Teaching Certificate.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 101	Physics in the Environment	3	-
GSA 106	Chemistry for Non-Science Majors	-	3
GSB 212	Introduction to American Government and Politics	4	-
GSB 202	Introduction to Psychology	-	3
GSC 102	Problems of Moral Decisions	3	-
GSC	Humanities (not English or Philosophy) (select) ¹	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSE 201	Healthful Living	-	2
GSE	Health and Physical Development	1	-
ED 201	Teacher's Role in Public School Education	-	1
		<u>14</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Studies (select) ¹	3	-
GSC	English in Humanities (select) ¹	3	-
GS	Elective from Area A, B or C	-	2
GSD	Mathematics (select) ¹	4	-
GSD 153	Public Communication	-	2
GSE	Health and Physical Development	1	-
ED 301	Human Growth, Development and Learning	-	2
OE 300A	Occupational Simulation and Cluster Study	3	-
OE 300B	Occupational Simulation and Cluster Study	-	3
OE 301	Occupational Orientation and Exploration	-	3
Elective		-	4
		<u>17</u>	<u>16</u>

¹Refer to the section General Studies for the Transfer Student.

Refer to the Undergraduate Catalog for specific major requirements.

Special Note To Community College Personnel: The program in occupational teaching and secondary school occupational teaching require the equivalent of an associate degree in a technical specialty for admission. Therefore, the two-year recommended program above applies only to the pre-occupational teaching specialty.

Occupational Education As A Major

To include the following required courses: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300, History of the United States 1492 to 1877; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD or departmental).

Chief Academic Advisor
 Departmental Telephone - 618-536-2329
 Location - Wham Building, Room 108

Dr. James Sullivan, Chairman
 Vocational - Educational Studies
 Departmental Telephone - 618-453-5733
 Location - Wham Building, Room 146

RECOMMENDED PROGRAM

PHILOSOPHY

College of Liberal Arts
(Bachelor of Arts)

The Philosophy Department offers a broad range of courses covering the areas of ethics, aesthetics, logic, metaphysics, the history of both Western and Oriental philosophy, as well as art, education, history, and religion.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Science (select) ¹	3	3
GSC 102 or 104	Philosophy (Ethics or Problems) ²	3	-
GSD	English Composition ¹ and one of 117, 118, or 119	3	2
GSD	Speech (select) ¹	2	-
GSD	Math (select) ¹	-	4
GSE	Health and Physical Development (select) ¹	2	2
Elective 1,3		3	-
		16	14
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	3	-
GSC	Humanities (select) ¹	3	3
GSC 208	Philosophy (Logic) ²	-	3
*Phil	Ancient Philosophy	3	-
*Phil	Modern Philosophy	-	3
Elective ^{1,3}		3	3
		15	15

*Required course for a major in Philosophy.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²No more than 2 courses or 6 hours on the 100 and 200 level will count toward the major.

³Elective hours may be used in the following ways, 1) student may explore areas of interest, 2) they may select a minor which is required by the department, 3) students planning to enter graduate school may elect to complete two years of a foreign language, 4) philosophy majors emphasizing logic are advised to elect additional math courses.

Philosophy As A Major

The program in philosophy is an excellent background for future work in law schools, seminaries, government service and other professional areas, as well as graduate school. The Department maintains its own advisement system to help the student design a program which best suits his interests and needs. The Honors Program in Philosophy provides students a chance to participate in seminars on a variety of topics.

Dr. George McClure - Chairperson
Department Telephone - 618-536-6641
Location - Faner Building, Room 3065

The Physical Education concentration is intended to qualify young people for positions as teachers, coaches, or specialists in public and private elementary or secondary schools, colleges, and universities as well as other social agencies which promote physical activity programs. Courses have been designed to meet the requirements of state departments of education and other agencies which have adopted professional standards.

Complete and integrated experience in teaching physical education and assisting in coaching under qualified supervisors is provided in the cooperating schools of the area. Added experiences are gained through membership in the Physical Education Club; membership in professional associations, participation on intramural teams; assisting in service class testing; professional journals; and working with recreational and school groups in teaching techniques of various activities.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 209	Principles of Physiology	3	-
GSB 300 or 212	History of U.S. or American Government	-	3
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD	Mathematics (select) ¹	-	4
GSE 201	Healthful Living	2	-
Educ 201	Teacher's Role in Public School Education	1	-
Electives		-	3
		15	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	3	-
GSC	English Elective in Humanities (required)	-	3
GSD	Speech (select) ¹	2	-
GSE	Health and Physical Development	-	2
Electives		7	7
		15	15

¹Refer to the section General Studies for Transfer Students.

A secondary concentration (the student may select the area) is recommended.

Refer to the Undergraduate Catalog for specific major requirements.

Specific General Studies courses listed are required for Teacher's Certification.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

Chairman, Physical Education
Telephone - 618-453-2685
Location - Arena 118s

RECOMMENDED PROGRAM

PHYSICS¹
College of Education

A major in Physics may be pursued through either the College of Science or the College of Education. The program of study provides for a mastery of the basic principles of classical and quantum physics. It also provides a breadth of coverage in the applications of physics principles to neighboring fields. Because of the central position of physics among the physical sciences, the physics graduate with his analytical and instrumental skills can flexibly contribute to the solution of pressing national problems of energy supply, water resources, transportation, environmental healthfulness, security and other vital concerns. A basic knowledge of classical and quantum physics is essential for a successful entry into a very wide variety of interdisciplinary areas of science such as biophysics, geophysics, communications science, space science, environmental science, medical science, and engineering.

The program at SIU-C, building upon a solid foundation of classical physics, provides a sound introduction to atomic and molecular physics with options for specializing in solid state, atmospheric, plasma, nuclear, mathematical physics and biophysics.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select) ²	-	2
GSD	Speech or Other Oral Communications	-	2
GSD	English Composition	3	-
GSE	Health and Physical Development (select) ²	1	-
*FL	Foreign Language ³	4	4
*Math 111	College Algebra and Trigonometry ⁶	5	-
*Math 150	Calculus I	-	5
*Phys 205a	University Physics ^{4,6}	-	3
*Phys 255a	University Physics Laboratory ^{4,6}	-	1
		<hr/> 16	<hr/> 17
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB 211	Economics	3	-
GSC	Humanities (select) ²	3	-
GSE	Health and Physical Development (select) ²	-	1
*Math 250	Calculus II	4	-
*Chem 224	Introduction to Chemical Principles ^{4,5}	-	5
*Chem 225	Introduction to Laboratory Techniques ^{4,5}	-	2
*Phys 205b	University Physics ^{4,6}	3	-
*Phys 205c	University Physics (c)	-	3
*Phys 255b	University Physics Laboratory ^{4,6}	1	-
*Phys 301	Theoretical Methods in Physics	-	2
		<hr/> 17	<hr/> 16

*Required courses for a major in Physics.

¹See also the program (B.S.) under the College of Science.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Math 111 substitutes for GSD Mathematics.

⁴These courses count towards the GSA science requirement.

⁵These courses are for students with a year or more of high school chemistry. Those with less than a year should take Chem 115 (Introduction to General Chemistry) before Chem 224.

⁶Entering freshmen who qualify to begin with Math 110b or higher may take Phys 204a,b (College Physics-Honors) and Phys 254a,b (College Physics Laboratory-Honors) during the first year. In the fall semester of the second year they may take Phys 205c-3, an Introduction to Modern Physics with Laboratory.

Physics As A Major

The following specific General Studies courses are required for teacher certification (these courses may be completed during the freshman and sophomore years): GSB 212, Introduction to American Government and Politics, or GSB 300, History of the United States from 1492 to 1877; GSD 101, English Composition; GSD 117, 118, or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

Chief Academic Advisor

Telephone - 618 - 536-2329

Location - Wham Building, Room 108

RECOMMENDED PROGRAM

PHYSICS¹
College of Science
(Bachelor of Science)

A major in Physics may be pursued through either the Collège of Science or the College of Education. The program of study provides for a mastery of the basic principles of classical and quantum physics. It also provides a breadth of coverages in the applications of physical principles to neighboring fields. Because of the central position of physics among the physical sciences, the physics graduate with his analytical and instrumental skills can flexibly contribute to the solution of pressing national problems of energy supply, water resources, transportation, environmental healthfulness, security and other vital concerns. A basic knowledge of classical and quantum physics is essential for a successful entry into a very wide variety of interdisciplinary areas of science such as biophysics, geophysics, communications science, space science, environmental science, medical science, and engineering.

The program at SIU-C, building upon a solid foundation of classical physics, provides a sound introduction to atomic molecular physics with options for specializing in solid state, atmospheric, plasma, nuclear, mathematical physics and biophysics.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select) ²	-	2
GSD	Speech or Other Oral Communications	-	2
GSD	English Composition	3	-
GSE	Health and Physical Development (select) ²	1	-
*FL	Foreign Language ³	4	4
*Math 111	College Algebra and Trigonometry ⁶	5	-
*Math 150	Calculus I	-	5
*Phys 205a	University Physics ^{4,6}	-	3
*Phys 255a	University Physics Laboratory ^{4,6}	-	1
		<u>16</u>	<u>17</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB 211	Economics	3	-
GSC	Humanities (select) ²	3	-
GSE	Health and Physical Development (select) ²	-	1
*Math 250	Calculus II	4	-
*Chem 224	Introduction to Chemical Principles ^{4,5}	-	5
*Chem 225	Introduction to Laboratory Techniques ^{4,5}	-	2
*Phys 205b	University Physics ^{4,6}	3	-
*Phys 205c	University Physics (c)	-	3
*Phys 255b	University Physics Laboratory ^{4,6}	1	-
*Phys 301	Theoretical Methods in Physics	-	2
		<u>17</u>	<u>16</u>

*Required courses for a major in Physics.

¹See also the program (B.S.) under the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Math 111 substitutes for GSD Mathematics.

⁴These courses count towards the GSA science requirement.

⁵These courses are for students with a year or more of high school chemistry. Those with less than a year should take Chem 115 (Introduction to General Chemistry) before Chem 224.

⁶Entering freshmen who qualify to begin with Math 110b or higher may take Phys 204a,b (College Physics-Honors) and Phys 254a,b (College Physics Laboratory-Honors) during the first year. In the fall semester of the second year they may take Phys 205c-3, an Introduction to Modern Physics with Laboratory.

Physics as a Major

At SIU a student may elect one of several options to prepare himself as a physicist. Choices exist for both the experimentally- and theoretically-oriented student. The physics major may prepare himself to enter the graduate school or an industrial and/or government laboratory. In addition, there is a degree option for those wishing to teach in the secondary level school system. A faculty undergraduate advisor helps each student organize his program.

Dr. W. C. Henneberger - Chairman
Department Telephone - 618-453-2570
Location - Neckers Building, Room 485

RECOMMENDED PROGRAM

PHYSIOLOGY
College of Science
(Bachelor of Arts)

Physiology involves studying the functioning of organisms during life and how life processes operate. Courses include pharmacology, electron microscopy, physiological techniques, and anatomy. Although a bachelor's degree with such a major is adequate preparation for some jobs, graduate training is usually required to obtain professional recognition. Colleges and universities provide the greatest job opportunities. Government agencies are the second largest employers of physiologists.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	-	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
For Lang	(select)	4	4
*Chem 222a,b	Introduction to Chemical Principles	4	4
or			
*Chem 224	Introduction to Chemical Principles	5	-
Chem 225		2	-
Math 110a,b	College Algebra and Trigonometry	3	2
or			
Math 111	College Algebra and Trigonometry	5	-
		14-19	14-18
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GS	Area B,C (select) ¹	2	3
*Biol 308	Organismic Functional Biology	3	-
*Biol	Select Two From Biology 305, 306, 307, 309	3	3
* Phys 203a,b	College Physics	3	3
Phys 253a,b	College Physics Laboratory	1	1
or			
Phys 205a,b	University Physics	3	3
Phys 255a,b	University Physics	1	1
Chem 340	Survey of Organic Chemistry	4	-
Chem 341	Lab Techniques	2	-
or			
Chem 344	Organic Chemistry	4	-
Chem 345	Lab Techniques	2	-
Chem 346	Organic Chemistry	-	2
Chem 347	Lab Techniques	-	3
		15-18	15

*Approved departmental substitution in Area A: Chem 222a or 224 for A106 and 107, Biol 308 for A115, Biol 305 for A314, Biol 307 for A240, Phy 203a for A101, Phys 203b for A202.

¹Refer to section General Studies for the Transfer Student.

Physiology As A Major

In addition to adequate equipment for all routine work, the following facilities are available to our graduate students: An RCA and a Hitachi electron microscope as well as a shadow-caster, photographic equipment, knifebreaker, and ultramicrotome; isotopic equipment including scalars and monitors; fully equipped animal room, autoclave, several varieties of analytic balances, refrigerated centrifuges; constant temperature baths and ovens; walk-in cold rooms; electrophoresis equipment; Warburg apparatus; physiographs; fraction collectors; oscilloscopes; blood gas apparatus, electrocardiograph; strength testing equipment.

Dr. Maatthew Freund - Department Chairman
Departmental Telephone - 618-453-2583
Departmental Location - Life Science II, Room 111

RECOMMENDED PROGRAM

PLANT AND SOIL SCIENCE
(Business Option)
School of Agriculture

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the business option is oriented toward the student interested in working in business and industry, he still may select courses in a wide choice of electives from throughout the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special studies, and seminars. A course of study in international agriculture can be taken if the student so desires.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Chem 140 A	Survey of Chemistry	-	4
Botany 200, 201	General Botany	4	-
GSB 202	Introduction to Psychology	3	-
AgI 204	Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	English Composition (select one)	-	2
GSE	Health and Physical Development	2	2
PLSS 200	Principles of Field Crop Production	-	3
		<u>15</u>	<u>17</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	2	-
GSB	Social Studies (select)	3	-
GSC	Humanities (select)	-	3
GSD 107	Mathematics	4	-
GSD 153	Speech	-	3
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
GSA or B or C elective		-	3
Acct 210	Accounting Principles and Control	-	3
Chem 140b	Survey of Chemistry	4	-
		<u>16</u>	<u>16</u>

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 40 hours in agriculture is required which includes 24 hours in Plant and Soil Science, and 7 hours from two other departments in the School of Agriculture. In addition, the student must take either Marketing 304 or Ag Industries 360, Ad Sc 301, 7 hours of business electives, and Botany 320. The student may select courses within the university for 8 hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with potential employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Dr. Gerald D. Coorts - Chairman
Department Telephone - 618-453-2496

RECOMMENDED PROGRAM

PLANT AND SOIL SCIENCE
(Environmental Studies Option)
School of Agriculture

The Department of Plant and Soil Science includes in its program a new option in Environmental Studies. The program is designed to familiarize the student with environmental problems relating to plants and soils. Thorough training in the solution to these problems will prepare students for interesting careers with environmental protection agencies, pollution control boards and other agencies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Botany 200, 201	General Botany	4	-
Chem 224, 225	Intro. to Chem. Prin.	-	7
GSB 220	Survival of Man	3	-
Econ 214	Intro. to Macroeconomics	-	3
GSC 221	Survival of Man	-	3
GSC	Humanities (select)	3	-
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE	Health and Physical Devel. (select)	2	-
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 330	Weather	-	3
GSB 212	American Government & Politics	4	-
GSC	Humanities (select)	-	3
GSD 107	Mathematics	4	-
GSD 153	Speech	-	3
GSA, B or C elective		3	-
GSE	Health and Physical Devel. (select)	2	-
AG 333	Agr. & Forestry Env. Problems	-	3
Econ 215	Introduction to Micronomics	3	-
PLSS 220	General Horticulture	-	3
		<u>16</u>	<u>15</u>

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. The student must enroll in the following courses: ANI 455-2, AGRI 401-3, and 440-3; Bot 320-4; Econ 333-3, PLSS 200-3, 240-4, 381-1, 419-3, 420-4, 441-3, 447-3, and 468-3, POLS 325-3 and 340-3; and TEE 314-4. In addition, the student may select courses within the university for 3 hours of outside electives, and 9 hours of electives in the School of Agriculture.

Environmental Studies As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Dr. Gerald D. Coorts, Chairman
Department Telephone: 618/453-2496

RECOMMENDED PROGRAM

PLANT AND SOIL SCIENCE
 (General Option)
 School of Agriculture

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the general option is production oriented, the student may select elective courses from the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special studies, and seminars. A course of study in international agriculture can be taken if the student so desires.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Chem 140A	Survey of	-	4
Botany 200, 201	General Botany	4	-
GSB	Social Studies (select)	3	-
AGI 204	Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	English Composition (select one)	-	2
GSE	Health and Physical Development (select)	2	2
PLSS 200	Principles of Field Crop Production	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	2	-
GSB	Social Studies (select)	3	-
GSC	Humanities (select)	-	3
GSD 107	Mathematics	4	-
GSD 153	Speech	-	3
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
GSA or B or C elective		-	3
Chem 140b	Survey of Chemistry	4	-
PLSS elective		-	3
		<u>16</u>	<u>16</u>

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 45 hours in agriculture is required which includes 24 hours in Plant and Soil Science, 7 hours from two other departments in the School of Agriculture and Botany 320-4. In addition, the student may select courses within the university for 19 hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with potential employers and assists in finding internships and permanent positions. A minor is not required and there are no foreign language requirements. An honors program and a work experience program are available.

Dr. Gerald D. Coorts - Chairman
 Department Telephone - 618-453-2496

RECOMMENDED PROGRAM

PLANT AND SOIL SCIENCE
 (Science Option)
 School of Agriculture

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the science option is oriented toward the student interested in an advanced degree, he still may select elective courses from the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special studies, and seminars. A course of study in international agriculture can be taken if the student so desires.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 101	Insights Mod. Comm. Systems	-	3
Botany 200, 201	General Botany	4	-
Chem 222a	Intro. to Chem. Prin.	4	-
Agri 204	Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	English Composition (select one)	-	2
GSE	Health and Physical Development (select)	2	2
PLSS 200	Principles of Field Crop Production	-	3
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	3	-
Math 110 or 111	College Algebra and Trigonometry	5	-
GSA or B or C			
elective		1	-
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
Chem 222b	Intro. to Chem. Prin.	-	4
AG electives		-	2
GSD 153	Public Communications	-	3
		<u>15</u>	<u>16</u>

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 40 hours in agriculture is required which includes 24 hours in Plant and Soil Science, and 7 hours from two other departments in the School of Agriculture. In addition, the student must take Botany 320, Chem 340 and 341 and 10 hours of courses in Mathematics, Physical Sciences, or Biological Sciences. The student may select courses within the university for 7 hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with many universities and research laboratories and assists in placing students. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Dr. Gerald D. Coorts - Chairman
 Department Telephone - 618-453-2496

RECOMMENDED PROGRAM

PLANT AND SOIL SCIENCE
 (Urban Horticulture)
 School of Agriculture

The Department of Plant and Soil Science includes in its program a new option in Urban Horticulture. The program is designed to provide thorough training in both theory and practice to prepare students for interesting careers in landscaping or gardening in parks, playgrounds, residential or industrial areas, road and street parkway improvement and maintenance, and in other public and private work to make the environment more pleasing and useful.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Chem 140 A	Survey of Chemistry	-	4
Botany 200, 201	General Botany	4	-
GSB 202	Introduction to Psychology	3	-
AgI 204	Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	English Composition (select one)	-	2
GSE	Health and Physical Development (select)	2	2
PLSS 220	Principles of Field Crop Production	-	3
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select)	-	2
GSB 212	Intro. to Am. Gov. & Politics	4	-
GSC	Humanities (select)	-	3
GSD 107	Mathematics	4	-
GSD 153	Speech	-	3
PLSS 240	Soil Science	-	4
GSA, B, or C elective		3	-
PLSS 200	Principles of Field Crop Production	-	3
AGI 376	Applied Graphics	2	-
Chem 140b	Survey of Chemistry	4	-
		<u>17</u>	<u>15</u>

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. The student must enroll in the following courses: AdSc 301-3, Biol 307-3, Bot 320-4, 456-4 or 457-3, Geog 470a-3, PLSS 327a, b-2,2; 328a, b-2,2; 381-1, 420-4, 322-3, 423 or 432-4; PolS 340-3. In addition, the student may select courses within the university for 4-7 hours of outside electives, 3-7 hours of electives in the School of Agriculture, and 5 hours of electives in the department of Plant and Soil Science.

Urban Horticulture As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Dr. Gerald D. Coorts - Chairman
 Department Telephone - 618-453-2496

RECOMMENDED PROGRAM

POLITICAL SCIENCE¹
(Government)
College of Education

The Department of Political Science offers an undergraduate major in the College of Liberal Arts and the College of Education. The major requires a minimum of thirty-four hours in Political Science courses. A minimum GPA of 2.0 is required. Furthermore, at least three courses must be taken at the 400 level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB 202	Introduction to Psychology	3	-
GSB 211 ³	Contemporary Economics	-	3
GSB 212	Introduction to American Government and Politics	-	3
GSC	Humanities (select) ²	3	3
GSD	English Composition ² and one of 117, 118 or 119 (see below)	3	2
GSE 201	Healthful Living	2	-
GSD	Mathematics (select) ²	-	4
ED 201	Teacher's Role in Public School Education	-	1
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSC	English Elective in Humanities	3	-
AmHist ³		-	3
GSB 250 ³	Introduction to Comparative Government and Politics	3	-
GSE 201	Health and Physical Development (see below)	-	2
GSD 153	Public Communication (see below)	2	-
Elective ^{2,4}		4	4
Elective ^{2,4}		-	4
ED 301	Human Growth, Development and Learning	2	-
		<u>17</u>	<u>16</u>

¹See also the program under the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Recommended but not required.

⁴Elective hours should be used in the following ways: (1) students may explore areas of interest; (2) in order to select a minor.

Political Science As A Major

The following specific General Studies courses are required for teacher certification. (These courses may be completed during the freshman and sophomore years.): GBS 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300, History of the United States from 1492 to 1877; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

POLITICAL SCIENCE
College of Liberal Arts

The Department of Political Science offers an undergraduate major in the College of Liberal Arts and the College of Education. The major requires a minimum of thirty-four hours in Political Science courses. A minimum GPA of 2.0 is required. Furthermore, at least three courses must be taken at the 400 level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Science (select) ¹	3	-
GSB 211 ²		-	3
GSB 212		-	4
GSC	Humanities (select) ¹	3	3
GSD	English Composition ¹ and one of 117, 118 or 119	3	2
GSE	Health and Physical Development (select) ¹	2	-
GSD	Math (select) ¹	-	4
		<u>14</u>	<u>16</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
Am Hist ²		-	3
GSB 250 ²		3	-
GSE	Health and Physical Development (select) ¹	-	1
GSD	Speech (select) ¹	2	-
Elective ^{1,3}		4	4
Elective ^{1,3}		-	4
		<u>15</u>	<u>15</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Recommended but not required.

³Elective hours should be used in the following ways: 1) students may explore areas of interest; 2) in order to select a minor or satisfy the Liberal Arts college requirement.

Political Science As A Major

The study of political science is concerned with predicting, explaining, and evaluating the political behavior, beliefs, laws, and organizational arrangements of people in a variety of settings.

Students may select a program from a wide range of courses in such fields as theory and methodology, American politics, public law, public administration, comparative politics and international relations.

A political science major may matriculate in either the College of Liberal Arts or the College of Education. The former will receive a B.A. degree from the College of Liberal Arts, the latter a B.S. degree from the College of Education. Undergraduate requirements for this major are identical. Other requirements may vary with the college. The Department of Political Science encourages majors to pursue a diversified curriculum. Those interested in foreign affairs should stress a foreign language. The political science student should be aware that mathematics and statistics are increasingly important in the study of the social sciences, including political science. The ability to write lucid English prose is also a decided asset. The student considering concentrating in political science should seek advice about planning his college program from the Department of Political Science faculty.

Dr. John Baker - Chairperson
Department Telephone - 618-536-2371
Location - Faner Building, Room 3081

RECOMMENDED PROGRAM

PREDENTISTRY
Preprofessional
(Select Academic Unit)

The SIU-C predental program meets the general requirements of all United States dental schools. It is designed by the Predental Advisory Committee to prepare students for taking the Dental Admission Test not later than spring of the junior year. The Committee and the Health Professions Information Office are available to offer information and guidance to predental students and to assist in the process of application to professional schools.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSC	Humanities	-	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Writing	-	2
GSE	Human Health and Well Being	1	1
CHEM 222a, b ¹	Introduction to Chemical Principles	4	4
MATH 110a, b	College Algebra and Trigonometry	3	2
ZOOL 220a, b ²	Zoology	4	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	-	3
GSD 152 or 153	Interpersonal or Public Communication	2	-
CHEM 344, 346	Organic Chemistry	4	2
CHEM 345, 347	Organic Chemistry Laboratory	2	3
PHYS 203a, b	College Physics	3	3
PHYS 253a, b	College Physics Laboratory	1	1
GSC	Humanities (select)	3	-
GSE	Human Health and Well-Being	1	1
ENG 290	Intermediate Expository Writing	-	3
		<u>16-17</u>	<u>16</u>

¹Students who expect to take the Dental Admission test after three years and complete a baccalaureate degree before entering dental school (and who are not chemistry majors) may postpone chemistry until the second year.

²Students who do not have a strong background in high school biology may choose to begin with Zool 118, General Zoology.

Third and Fourth Years

If all requirements are completed, students may take the Dental Admission Test in spring of their sophomore or fall of their junior years and apply for entry after three years of undergraduate preparation. Most students, however, are admitted to dental schools after four or more years of preparation. Students may choose any major and must complete the departmental, college and university requirements for a degree. No preference among possible majors is given by the professional schools. In addition to required courses, it is recommended that the student choose from among the following courses, as his or her time permits: Genetics, Cellular Biology, Embryology, Developmental Biology, Comparative Anatomy, Microbiology, Biochemistry, Psychobiology, Personality or Social Psychology. Additional mathematics, statistics, humanities and social sciences will also be helpful.

Dentistry As A Career

Professional training requires four years in the dental school, or three years in an accelerated program such as that of the SIU School of Dental Medicine. Specialties beyond general practice require further training. Although competition for spaces in the dental schools is severe, there is a predicted need for thousands of additional dentists by 1980. Dentistry is becoming increasingly involved in interdisciplinary practice, focusing on the medical and social aspects of dental health, stressing preventive dental care, and becoming involved in community health care delivery as well as the traditional private practice.

Patricia Sims
Health Professions Information Office
Departmental Telephone - 618-536-2147
Location: Neckers A-181

RECOMMENDED PROGRAM

PRE-LAW
(Pre-professional)
College of Liberal Arts

The Association of American Law Schools and the Southern Illinois University School of Law follow the policy that the effectiveness of prelegal study cannot be advanced by prescribing courses of study or extracurricular activities. Instead, primary emphasis is directed toward the development in prelaw students of basic skills and insights through education for comprehension and expression in words, for critical understanding of the human institutions and values with which law deals, and for creative power in thinking. This is best achieved in fields of individual interests and abilities. Subjects which provide stimulating training for one person may do very little to arouse and sharpen the intellect of another. In addition, law touches so many phases of human activity that there is scarcely a subject which is not of value to the law student and to the lawyer. A student is therefore advised to place as much emphasis on the liberal arts as his own program of undergraduate study will permit; and within the outlines of that program the following should also be noted:

The essential ability to think precisely and exactly is most likely to be acquired through courses in logic, mathematics, philosophy, and the natural sciences.¹

Courses in English composition and public speaking develop the power of clear and well-ordered expression. Preparation in composition is essential and preparation in public speaking is of great value.¹

The fields of history (particularly English and American history), political science, psychology, economics, and sociology are important to an appreciation of human institutions and values and their relation to law.¹

An understanding of financial statements and of elementary accounting principles has become almost indispensable.

There are opportunities in special types of practice for those who concentrate in particular fields, such as engineering, business administration, chemistry, physics, or agriculture before entering law school.

¹Refer to the section General Studies for the Transfer Student to determine what courses may be taken to satisfy the university's general education requirements.

Pre-Law

Pre-Law is not a major in that students cannot receive a degree in Pre-Law. Since most law schools now require applicants to possess a bachelor's degree, students are advised to select a major and academic unit where they would like to obtain a degree.

These are specific courses that are recommended and can be taken on the SIU campus during students' junior and senior years.

Pre-Law Advisor

Telephone - 618-453-3388

Location - Faner Hall, 1229 - Liberal Arts Advisement

RECOMMENDED PROGRAM

PREMEDICINE AND PREOSTEOPATHY
 Preprofessional
 (Select Academic Unit)

At SIU-C the premedical program is guided by the Premedical Advisory Committee. Through the Health Professions Information Office students are able to find information concerning professional schools and their requirements, curriculum guidance, and assistance with the procedures involved in applying to medical or osteopathic medical schools. The curriculum meets the general requirements of all United States medical schools and is designed to provide students with a strong course background on which to base their medical education.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	-	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Writing	-	2
GSD 112	Statistics (or select from math recommendations)	-	2
GSE	Human Health and Well-Being (select)	1	1
MATH 111	College Algebra-Trigonometry	5	-
ZOOL 220a,b ¹	Zoology	4	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select)	3	-
GSD 152 or 153	Interpersonal or Public Communication	2	-
CHEM 222a,b	Introduction to Chemical Principles	4	4
ENG 290	Intermediate Expository Writing	-	3
PHYS 203a,b	College Physics	3	3
PHYS 253a,b	College Physics Laboratory	1	1
Electives	Select from degree requirements or from courses recommended for premed students	-	5
		<u>16</u>	<u>16</u>

¹Students who do not have a strong background in high school biology may choose to begin with Zool 118, Introductory Zoology.

Third and Fourth Years

Premedical students must complete organic chemistry in the third year in order to take the Medical College Admission Test in the spring of that year. Application procedures require a year.

Premedical students may choose any major in which to earn the bachelor's degree. Requirements of that degree, of the college in which it is granted, and of the University must be met at the same time that premedical requirements are taken. If a science major is chosen, there will be considerable overlapping of requirements. Additional courses recommended for premedical preparation include genetics, cellular biology, embryology or developmental biology, comparative anatomy, microbiology, biochemistry, psychobiology, additional mathematics, and social sciences. If the major chosen is in the College of Science, a year of foreign language will be required.

Medicine As A Career

Medical training will require another three calendar or four academic years, plus residency, depending on the school and field of medicine chosen. Admission to medical schools is extremely competitive. Students can help themselves by making realistic appraisals of their interests and abilities, by planning ahead to meet all requirements and time schedules, and by keeping themselves informed of admission requirements and procedures. They will receive help through the Information Office and Premedical Committee.

Medicine today offers both promise and challenge, whether students are interested in becoming primary physicians, physician specialists or medical scientists. Prevention as well as cure, and the extension of health care to all of society have become important goals in the preparation of physicians.

The flexibility with which the premedical student at SIU-C may approach his total undergraduate preparation as well as the quality of the premedical requirements make it possible for students to achieve an excellent premedical preparation.

Patricia Sims
 Health Professions Information Office
 Telephone - 618-536-2147
 Location - Neckers A-181

RECOMMENDED PROGRAM

PREMEDICAL TECHNOLOGY College of Science

In the premedical technology program offered by SIU-C, students may take two years of courses and apply to an upper level (junior and senior years) professional school or take three years of courses and apply to an accredited hospital training laboratory for twelve months of professional training. Satisfactory completion of either program results in the baccalaureate degree.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 208, 209	Principles of Physiology and Laboratory	-	4
GSB	Social Sciences (select)	-	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Select from Expository, Technical or Creative Writing	-	2
GSE	Health and Physical Development (select)	1	1
CHEM 222a,b	Introduction to Chemical Principles	4	4
MATH 110a,b	College Algebra and Trigonometry	3	2
ZOOL 118	General Zoology	4	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	3	-
GSD 152 or 153	Interpersonal or Public Communication	-	2
GSE	Health and Physical Development (select)	1	1
CHEM 344, 346	Organic Chemistry	4	2
CHEM 345, 347	Laboratory Techniques	2	3
PHYS 203a, b	College Physics	3	3
PHYS 253a, b	College Physics Laboratory	1	1
		<u>17</u>	<u>15</u>

Third Year

Students enter a two year program at a university which offers an upper level medical technology program and awards the bachelor's degree, or

Students take microbiology and other biological science courses to complete premedical technology requirements, plus taking courses necessary to satisfy degree requirements at SIU-C (foreign language, remaining general studies requirements and basic physiology or other departmental requirements). Application must be made to hospitals where training may be completed.

Fourth Year

Upon acceptance by the hospital training laboratory, students complete twelve months of classes and supervised work in the laboratory. Credits from this training are transferred back to SIU-C to count toward total graduation requirements. Training is followed by a licensing examination by the Registry of Medical Technologists of the American Society of Clinical Pathologists. Training in an accredited program, passing the examination, and earning a bachelor's degree are necessary before the candidate becomes a registered MT(ASCP).

Medical Technology As A Career

Medical technologists perform scientific, fact finding tests in the laboratory to assist in the diagnosis and treatment of disease. Because of their thorough training, they know the theory behind the test, rather than just "how to do it," and they are able to detect results that are not in accord with the clinical evidence. Medical technologists may work in hospitals or clinics, independent laboratories, research facilities or industry. Advancement is available with further training in nuclear medical technology, blood banking, or in graduate degree programs leading to positions in teaching and administration.

Patricia Sims, Coordinator
Health Professions Information Office
Departmental Telephone - 618-536-2147
Location: Neckers A-181

RECOMMENDED PROGRAM

PRE-NURSING
Preprofessional
(General Studies)

The baccalaureate degree in nursing is offered at Southern Illinois Univeristy at Edwards-ville. Students may complete selected General Studies and nursing prerequisites at Carbon-dale during their first two years and apply for admission to the Division of Nursing at SIU-Edwardsville for junior and senior years.

The total program is designed for those who wish to become registered nurses or registered nurses who wish: (1) to strengthen their scientific basis for nursing practice, (2) to broaden and deepen their general educational and cultural background, and (3) to obtain a baccalaureate degree to qualify for further study on the graduate level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 115**	Introductory Biology	3	-
GSB 203	Sociology	-	4
GSC 208	Logic	-	3
GSD 101	English Composition	3	-
GSD 117	Expository Writing	-	2
GSD 107	Intermediate Algebra	4	-
GSD 153	Public Communication	2	-
Chem 140a,b	Chemistry (inorganic, organic, and biochemistry)	4	4
Phs1 301	Human Anatomy	-	4
		<hr/> 16	<hr/> 17
<u>Second Year</u>		<u>Fall</u>	<u>Spring***</u>
GSA 209-3, 208-1	Principles of Physiology	4	
GSB 202	Psychology	3	
Micro 301-4	Principles of Microbiology	4	
GS		3	
GS		2	
		<hr/> 16	

**Zool 118 may be substituted for GSA 115.

***If the student decides to stay for the Spring Semester of the second year, GSA 101, physics and other GS requirements could be taken. At present it takes 7 quarters to complete the Nursing program at Edwardsville starting with the first clinical course, Nurs 310.

As soon as possible after completion of the Fall Semester, the student should initiate application to the School of Nursing at SIU-E.

A grade of "C" or above is required in all Nursing courses, all science courses and General Studies Area A. Students with an overall 3.5 grade point average (on a 5-point scale) will be considered admissible up to the limit of available space.

Transfer science courses must be evaluated by the School of Nursing, Edwardsville. Constitution requirement is still required at Edwardsville.

Billie Jacobini
General Studies Division
Telephone - 618-453-4351
Location - Woody Hall, Wing C, Room C-5
or
Mary Goss
Pre-Major Advisement
Telephone - 618-453-4351
Location - Woody Hall, Wing C

RECOMMENDED PROGRAM

PRE-OPTOMETRY
Preprofessional
(Select Academic Unit)

SIU-C is able to offer a high quality preparation for pre-optometry students. Sixty semester hours of college courses are required before students can be admitted to optometry school. Many applicants have additional preparation, thus making admission more competitive. Illinois College of Optometry reports that about half the students admitted in recent years hold a baccalaureate degree.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select)	-	3
GSC	Humanities (select)	3	-
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Select from Expository, Technical or Creative Writing	-	2
CHEM 222a,b	Introduction to Chemical Principles	4	4
Math 110a,b	College Algebra and Trigonometry	3	2
ZOOL 220a,b ¹	Zoology	4	4
		<u>17</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	3	-
Chem 344, 345	Organic Chemistry	6	-
GSC	Humanities (select)	-	3
GSD 152 or 153	Interpersonal or Public Communication	-	2
FL	Foreign Language (select)	4	4
PHYS 203a,b	College Physics	3	3
PHYS 253a,b	College Physics Laboratory	1	1
PSYCH	(select)	-	3
		<u>17</u>	<u>16</u>

¹Students who do not have a strong background in high school biology may choose to begin with Zool 118, Introductory Zoology.

Third and Fourth Years

Students may complete a major at SIU-C before entering optometry school or may enter after two or three years of preprofessional study. Choice of a major is up to the students, but additional science and mathematics courses may enhance probabilities of being accepted by the optometry school. If students are accepted prior to earning a bachelor's degree, they have the option of acquiring that degree by taking certain requirements of the professional school or of bypassing the bachelor's degree and earning the doctor of optometry (O.D.) degree only.

Optometry As A Career

Optometry training requires four years in an accredited professional school. The candidates then take a licensing examination.

Career opportunities exist in individual or group practice, in hospitals or eye clinics, in public health agencies, in industrial health programs, and in consultant services to other professions, such as educators in remedial reading, illuminating engineers, or highway safety planners. It is estimated that 15,000 newly trained optometrists will be needed by 1980.

Patricia Sims, Coordinator
Health Professions Information Office
Telephone - 618-536-2147
Location - Neckers A-181

RECOMMENDED PROGRAM

PREPHARMACY
Preprofessional
(Select Academic Unit)

Students can achieve excellent preparation for pharmacy school by taking their first year at SIU-C, and applying for admission to a pharmacy school in the second (first professional) year of the five year program. Admission to the pharmacy school becomes more difficult when the student is seeking admission as a third year student. The guide below includes courses currently required for transfer to St. Louis College of Pharmacy or University of Illinois College of Pharmacy.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 212	American Government and Politics ¹	-	4
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Writing	-	2
GSD 112	Basic Concepts of Statistics ¹	-	2
CHEM 222a,b	Introduction to Chemical Principles	4	4
ZOOL 118	Introduction to Zoology	4	-
BOT 200 and 201	Introduction to Botany (lecture and lab)	-	4
Math 111	Algebra-trigonometry	5	-
		<u>17</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology ¹	-	3
GSD 152 or 153	Interpersonal or Public Communication ¹	2	-
GSC	Humanities (select from literature courses)	-	3
CHEM 344, 346	Organic Chemistry	4	2
CHEM 345, 347	Laboratory Techniques	2	3
PHYS 203a,b	College Physics	3	3
PHYS 253a,b	College Physics Laboratory	1	1
MATH 140-4	Calculus ²	4	-
		<u>16</u>	<u>15</u>

¹Requirement of St. Louis; will be accepted as elective by University of Illinois.

²Requirement of University of Illinois; will be accepted as elective by St. Louis.

NOTE: If prepharmacy students plan to spend a second year at SIU-C, they must be in touch with a pharmacy school to ascertain current requirements and admission procedures. In addition, the students will probably be required to attend a summer session at the professional school to pick up specialized courses normally taught in the second year.

If students decide to change majors and earn a degree at SIU-C, they must consult an academic advisor immediately to plan curricula that include all SIU-C requirements.

Third, Fourth and Fifth Years

Students must spend a minimum of three years in the professional school. The degree earned is a Bachelor of Science in Pharmacy. Most states require twelve months of practical experience under the supervision of a registered pharmacist before granting a license. Some of this experience may be accumulated during summer vacations.

Pharmacy As A Career

Students with an aptitude for science and interest in the pharmaceutical field will find that pharmacy offers a variety of careers. The pharmacist may practice in a retail business, in a hospital or clinic or in public health facilities. In industrial pharmacy there are opportunities in research, manufacturing, quality control, administration and sales. Graduate programs are available for pharmacists who seek advancement to careers requiring a master's or doctorate degree.

Patricia Sims
Health Professions Information Office
Department Telephone - 618-536-2147
Location - Neckers A-181

RECOMMENDED PROGRAM

PREPHYSICAL THERAPY
Preprofessional

SIU-C offers courses which will meet the requirements of any physical therapy school. The curriculum suggested below attempts to meet minimum requirements of the Illinois professional schools. Students may prefer to extend preparation time or add summer terms. Admission is extremely competitive.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	3	-
GSD 102	English Composition	3	-
GSD 117, 118 or 119	Expository, Technical, or Creative Writing (select)	-	2
GSE	Health and Physical Development (select)	1	1
Chem 140a,b	Survey of Chemistry	4	4
Math 110a,b	Algebra-Trigonometry	3	2
Psych 301 or 303	Child or Adolescent Psychology	-	3
Zool 118*	General Zoology	-	4
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 208, 209 or Phs1 210	Principles of Physiology	4	-
GSB 203	Sociological Perspective	-	4
GSC	Humanities (select from literature courses)	3	3
GSD 152 or 153	Interpersonal or Public Communications	2-3	-
Phys 203a,b	College Physics	3	3
Phys 253a,b	College Physics Laboratory	1	1
Psyc 305	Personality Psychology	3	-
Psyc 431	Psychopathology	-	3
Zool 220b		-	4
		<u>16-17</u>	<u>18</u>

*Eight semester hours of general biology with laboratory may be substituted for the eight hours of zoology shown in these two years.

Recommended electives include Anatomy (Phs1 301), Kinesiology (Pew or Pem 303), Psychobiology (GSA 302), Psychology of Maturity and Old Age (Psyc 304), sports or skill oriented physical education courses, additional social science courses.

Third and Fourth Years

Students who complete training at Northwestern University will remain at SIU-C for a third year. Admission requires a minimum of 90 semester hours. During the third year, students should work toward requirements for a degree in an SIU-C program inasmuch as they will not know whether their applications are successful until late in the year. If admitted, the professional training at Northwestern is completed in 16 consecutive months.

Students who complete training at Chicago Medical School (University of Health Sciences) or at University of Illinois will spend both the third and fourth years in the professional school. Admission requires a minimum of 60 semester hours plus physical education hours.

STUDENTS WHO DECIDE TO REMAIN AT SIU-C FOR A BACHELOR'S DEGREE MUST CONSULT AN ACADEMIC ADVISOR IMMEDIATELY AND PLAN A CURRICULUM LEADING TO A DEGREE IN AN APPROVED PROGRAM.

Health Professions Information Office
Telephone - 618-536-2147
Location - Neckers A-181

RECOMMENDED PROGRAM

PREVETERINARY MEDICINE
Preprofessional
(Select Academic Unit)

This curriculum is based on the requirements for application to University of Illinois College of Veterinary Medicine. Although students may apply to professional school after two years undergraduate preparation, most accepted students have completed a degree. Students may choose to spread the required preveterinary sciences through a third year. If a degree is to be completed, a major may be chosen in either the College of Agriculture or the College of Science.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Select from Expository, Technical or Creative Writing	-	2
GSD 152 or 153	Interpersonal or Public Communication	-	2
GSE	Human Health and Well Being (select)	1	1
BOT 200, 201	General Botany and Laboratory	-	4
CHEM 222a,b	Introduction to Chemical Principles	4	4
MATH 110a,b	Algebra-Trigonometry	3	2
ZOOL 118	General Zoology	4	-
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	3	3
GSE	Human Health and Well Being	1	1
CHEM 344, 346	Organic Chemistry	4	2
CHEM 345, 347	Organic Chemistry Laboratory	2	3
PHYS 203a,b	College Physics	3	3
PHYS 253a,b	College Physics Laboratory	1	1
		<u>17</u>	<u>16</u>

Third and Fourth Years

Students will choose a major and complete the requirements of that major and college. In addition to required preveterinary courses, there are recommended courses from which the student may choose in accordance with his available time. These include Science of Animals, Production and Processing of Animals, Horses, Animal Nutrition, Behavioral Manipulation of Animals, Vertebrate Zoology, Comparative Anatomy, Genetics, Cell Physiology, Environmental Biology, and Organismic Functional Biology.

Veterinary Medicine As A Career

After acceptance into the professional school, completion of training in veterinary medicine requires four years. Illinois residents are effectively limited to applying to the University of Illinois because other veterinary schools accept residents of their own states or of states having no veterinary school. Competition for available spaces in the professional schools exceeds that for human medical training. With the diversity of offerings at SIU-C, however, the preveterinary students have an opportunity to develop related or alternate interests at the same time that they are preparing themselves to apply to the veterinary school.

Professional veterinarians have a wide variety of career choices. They may choose small animal practice, livestock disease prevention and control, meat inspection, control of diseases transmitted from animal to man, supervision of interstate movement of animals, or research in animal disease or in drugs used in animal care.

Patricia Sims
Health Professions Information Office
Departmental Telephone - 618-536-2147
Location: Neckers A-181

RECOMMENDED PROGRAM

PSYCHOLOGY
College of Liberal Arts
(Bachelor of Arts)

The psychology major consists of ten psychology courses counting GSB 202 as a requirement and GSA 302 as an elective for a total of 30-32 hours. College algebra is also required. See the catalog for the specific psychology requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Science (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 117	Expository Writing)		
GSD 118	Technical Report Writing) Select One	-	2
GSD 119	Creative Writing)		
GSE	Health and Physical Development (select) ¹	2	2
Math 139	Finite Math	3	-
Elective ²		-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB 202	Introduction to Psychology	3	-
GSB	Social Science (select) ¹	-	3
GSC	Humanities (select) ¹	-	3
GSD	Speech (select) ¹	2	-
Psyc ²		-	3
Elective ²		3	3
Elective ²		3	3
		<u>14</u>	<u>15</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Elective hours should be used in the following ways: 1) students may explore areas of interest in order to select a minor or to satisfy the Liberal Arts college requirement.

Psychology As A Major

The major program serves three main classes of students: 1) those who wish an interesting major but who plan no postgraduate academic work, 2) those who plan non-psychology graduate work for which an undergraduate major may be useful (e.g., medical school, social welfare, rehabilitation counseling), and 3) those preparing for graduate work in psychology. As a consequence, the program is aimed at providing broad general education rather than training in specialized psychological skills.

Dr. David Erhenfreund, Chairperson
Department Telephone - 618-536-2301
Location - Life Science II, 281

RECOMMENDED PROGRAM

RADIO AND TELEVISION
 (Bachelor of Science)
 College of Communications and
 Fine Arts

A major in Radio and Television may be pursued through the School of Communications. Such a program leads to the Bachelor of Science degree with specializations in programming, management, commercial management, newscasting and special events, production, announcing, and writing. The department's program is designed to prepare the student for a career in one of the several phases of the professional broadcasting industry. The department is closely integrated with the University Broadcasting Service which operates stations WSIU-FM, WUSI-TV, and WSIU-TV with complete and technically professional activities. As part of his training, a major is required to achieve actual experiences in the phases of broadcasting. Broadcasting occupations such as directors, producers, announcers, supervisors, technicians, and time salesmen are some of the positions available to graduates.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	3
*GSD 101, 117, or 119	English Composition ²	3	2
GSD 153	Speech	2	3
GSE	Health and Physical Development (select) ¹	1	-
Elective	Electives ³	4	3
		16	17

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	-	3
GSD 107, or 110 and 112	Basic College Math	4	-
GSE	Health and Physical Development (select) ¹	2	1
*R&T 300m	Broadcast Performance/Production/Writing	4	-
*R&T 300p	Programming and Foundations	-	4
Elective	Electives ³	3	3
		16	17

*Required courses for a major in Radio and Television.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Each student in Radio and Television must by the end of his sophomore year either achieve a grade of "B" in both GSD 101, 117, or 119 or a grade of "C" in English 290 (Advanced Composition).

³Students should consult with the department regarding the use of elective hours. There is much variation in the requirements according to the specialization the student selects (general, performance, writing, programming, news and public affairs, television production or radio production).

⁴Radio and Television 300m and p, must each be completed with at least a grade of "C" before any other courses in the Department of Radio and Television are taken.

Radio and Television as A Major

A secondary concentration (minor) is required in a related field.

Radio-Television students must also either demonstrate proficiency in typing at 30 words per minute by passing a test administered by the Department of Secretarial and Business Education, or pass SCR 101A (Typewriting) with a grade of "B".

Dr. Charles T. Lynch - Chairman
 Department Telephone - (618) 453-4343
 Location - Communications Building, Room 1056

RECOMMENDED PROGRAM

RECREATION

(Park and Community Recreation)
(Recreation for Special
Populations)
(Outdoor Recreation)
(Commercial Recreation)
College of Education

The Department of Recreation prepares the student for positions in the management of man's leisure time pursuits.

The curriculum emphasizes the practical as well as the theoretical aspects of recreation by offering practicums, supervised field experiences, and internships in various recreation settings throughout Illinois and the nation.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 312	Conservation of Natural Resources	-	3
GSA	Science (select) ¹	3	-
*GSB 203	The Sociological Perspective	4	-
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 118	Writing (select) ¹	-	2
GSE	Health and Physical Education Activity	1	1
*Rec 300	Introduction to Leisure and Recreation	3	-
*Rec 302	Institutional Recreation Program	-	3
		<u>17</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 240	Ecology of Man	3	-
*GSA 303	Ferns, Trees and Wildflowers	-	3
*GSB 321	Socialization of the Individual	3	-
GSC	Humanities (select) ¹ (additional English required)	3	3
*GSD 110	Economics and Business Statistics ²	2	-
GSD	Math (select) ¹	2	-
GSD 152 or 153	Speech	-	2
GSE	Health and Physical Education Activity (select) ¹	1	-
GSE 103	Dance ³	-	1
*Rec 305	Recreation Programming and Leadership	-	3
*HED 334	Standard First Aid	2	-
Rec	Elective	-	3
		<u>16</u>	<u>15</u>

¹Refer to section General Studies for the Transfer Student. See also the Undergraduate Catalog for specific departmental requirements.

²Students must take GSD 110 or Sociology 308: Statistics for Social Science.

³Required for program specialist option.

*Departmental requirements.

Recreation As A Major

Each student is expected to choose courses which will give him a broad background in recreational activities and skills.

Students concentrating in recreation are encouraged to obtain the following certificates: American Red Cross Life Saving and Water Certificate, American Camping Association Campcraft Certificate, workshop certificates in recreation sponsored by the state and national recreation and park associations, and other certificates in instructional areas are desirable in preparation for positions in recreation management.

Dr. William O'Brien - Chairman
Department Telephone - 618-453-4331
Location - College View Dorm, 408 West Mill,
Room 21

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

RELIGIOUS STUDIES
College of Liberal Arts

Religious studies interprets whatever a person cares most about as that person's religion. If this kind of caring focuses on God and the church or synagogue, then that religion is one of the traditional types in the western world. Or it could be an eastern type such as Hinduism, Buddhism, or Yoga, or some psychological expression such as Transcendental Meditation. We also study secular "religious loyalties" such as nationalism, marxism, "the American way of life." In each topic of study we use several methods, historical, psychological, sociological, philosophical, literary. In any case, the university does not promote any one religion; it tries to provide a sympathetic and critical analysis of as many religions as possible, without letting the student's personal preference influence his or her grade.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	Social Science - Sociology (select) ^{2,3}	-	3
GSB	Social Science - (select) ²	3	-
GSC	Humanities - Foreign Language (Greek or Hebrew) ³	4	4
GSD	English Composition and one of 117, 118 or 119 ²	3	2
GSD	Math (select) ²	-	4
GSE	Health and Physical Development ²	2	2
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB	Social Science - Psychology (select) ^{2,3}	3	-
GSC	216, 217 ¹	3	3
GSC	Humanities ²	-	3
GSD	Speech	2	-
Elective ⁴		4	3
Elective ⁴		-	3
		<u>15</u>	<u>15</u>

¹Required by major. Prerequisite to most religious studies courses.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Recommended but not required.

⁴Elective hours should be used in the following ways: (1) students may explore areas of interest, (2) they may select a minor or satisfy the Liberal Arts College requirement.

Religious Studies As A Major

Since religious studies uses many methods, there can be no rigid prerequisite for students entering the field. However, it is obvious that a person with background in the social sciences, in history, or in language and literature will have a distinct advantage. Certain courses in these areas, if religion-related, can be counted toward a religious studies major in individual cases.

Professor John F. Hayward - Chairperson
Departmental Telephone - 618-453-3067
Location - Faner Building, Room 3044

RECOMMENDED PROGRAM

RUSSIAN¹
College of Liberal Arts

Programs of study leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classical Studies, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish is required to take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	-	3
GSB	Social Science (select) ²	3	3
GSC	Humanities (select) ²	3	-
GSD	English Composition ² and one of 117, 118, or 119	3	2
Russ 136a,b	Elementary Russian ⁴	4	4
GSE	Health and Physical Development (select) ²	2	-
GSD	Math (select) ²	-	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB	Social Science (select) ²	-	3
GSC	Humanities (select) ²	3	-
GSD	Speech (select) ²	2	-
*Russ 201a,b	Intermediate Russian ⁴	3	3
*Russ 220a,b	Intermediate Russian Conversation ⁴	2	2
GSE	Health and Physical Development (select) ²	2	-
Elective ^{2,3}		-	3
		<u>15</u>	<u>14</u>

*Counts in the 36 hour Russian major requirement.

¹See also the program under the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Elective hours should be used in the following ways: 1) students may explore areas of interest, 2) they may select a minor or satisfy the Liberal Arts college requirement.

⁴Proficiency exams can be taken in this course.

Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU-C.

Russian As A Major

A major in Russian consists of 36 semester hours in courses above the 100 level with a minimum of 14 hours on the 300 level and 12 hours on the 400 level. FL 436, Methods in Teaching Modern Foreign Languages, is recommended. A minor in Russian consists of 18 semester hours in courses above the 100 level.

Dr. Eugene Timpe - Chairperson
Department Telephone - 618-536-5571
Location - Faner Building, Room 2166

RECOMMENDED PROGRAM

SOCIAL STUDIES
College of Education

A major in Social Studies may be pursued through the Department of Curriculum, Instruction and Media in the College of Education. Course work includes the areas of history, political science, economics, geography, and anthropology - psychology - sociology. Such a major is designed to prepare individuals for teaching in junior and senior high schools.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
*GSA 330	The Atmospheric Environment	-	3
*GSB 104	Man and His World: Anthropology	3	-
*GSB 202	Introduction to Psychology	3	-
*GSB 212	Introduction to American Government & Politics	4	-
GSC	Humanities (select) ¹	-	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select) ¹	-	2
GSD	Speech (select) ¹	-	2
GSE 201	Healthful Living	-	2
Educ 201	Teacher's Role in Public School Education	-	1
*Pol Sci 213	State and Local Government	-	3
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
*GSB 300	History of U. S. 1492 to 1877	3	-
*GSB 301	History of U. S. 1877 to Present	-	3
GSC	Humanities (select) ¹	3	3
GSD	Math (select) ¹	4	-
GSE	Health and Physical Education Activity	1	1
*Econ 214	Introduction to Macro Economics	-	4
*Soc 301	Principles of Sociology	-	4
GSC	English Humanities Elective (required)	-	3
		<u>17</u>	<u>18</u>

¹Refer to the section General Studies for the Transfer Student.

²Refer to the Undergraduate Catalog for specific major requirements.

*Required courses in Social Studies.

Social Studies As A Major

Students should be aware of requirements for entrance into the Formal Teacher Education Program in addition to professional education course requirements.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

Dr. Donald Paige - Chairman
Telephone - 618-453-2239
Location - Wham Building, Room 327

RECOMMENDED PROGRAM

SOCIAL WELFARE

Division of Social and
Community Services
College of Human Resources
(Bachelor of Science)

The Social Welfare program at Southern Illinois University offers a professional curriculum which is designed to meet the educational needs of students with career interests in the human services field and leads to a Bachelor of Science degree in Social Welfare. The curriculum provides an interdisciplinary approach to understanding man in contemporary society, basic social problems, and some of the issues associated with the prevention and treatment of these problems. Students are helped to understand the principles and basic skills employed in developing and delivering services to individuals and groups and to communities.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB 202	Psychology ²	3	-
GSB 203	Sociology ²	-	4
GSC	Humanities (select) ¹	3	3
GSD 113	Mathematics ³	2	-
GSD 110 or 112	Mathematics ³	-	2
GSD 101	English Composition	3	-
GSD	English Composition (select one from GSD 117, 118, 119)	-	2
GSE	Health and Physical Development (select)	<u>1</u>	<u>1</u>
		15	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB 212	American Government ²	-	4
GSC	Humanities (select) ¹	3	-
GSD	Speech or Alternate GSD	-	2
GSE	Health and Physical Development (select) ¹	2	-
GSB	Select ¹	-	3
Soc Wel 375	Social Welfare as a Social Institution ⁴	3	-
Soc Wel 383	Introduction to Interviewing ⁴	-	3
Psyc	Any 300 or 400 Level	-	3
Soc	Any 300 or 400 Level ⁴	<u>4</u>	<u>-</u>
		15	15

Third and Fourth Year

The last two years of a student's program concentrate on specific professional objectives. The student will complete 63 hours in the major area which includes 43 hours in Social Welfare, 10 hours, comprising one course each of Sociology, Psychology and Political Science and 10 hours of approved electives.

Two of the basic courses in the curriculum are field experiences. In these courses the student attends weekly seminars and works a minimum of 20 hours each week under supervision in an approved social service agency where he/she provides direct services to clients. Placements may be over two semesters half time, or for one semester full time. Field placements may not begin during summer semester. Arrangements can be made for field practicum in approved social service agencies away from the University, under special circumstances.

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the selection, General Studies for the Transfer Student.

²Students are recommended to take the Area B courses recommended above as pre-requisites to 300 and 400 level departmental courses which are required for the major.

³These 4 hours to include statistics are recommended for Social Welfare majors rather than Algebra. However, 4 hours of Algebra would meet General Studies requirements and would not cause any problems.

⁴These courses are required for a Social Welfare major. For specific information regarding the acceptability of a major requirements from a junior college, Dr. Ira Erlich of the Social Welfare program may be contacted.

Dr. Ira F. Erlich - Divisional Executive Officer
Telephone - 618-536-5558
Location - Home Economics Building, Room 0007

RECOMMENDED PROGRAM

SOCIOLOGY
College of Liberal Arts

The sociology curriculum provides the student with an understanding of social problems, processes, development, structures, institutions and movements and with the concepts and methods used to study them. The sociology major is intended to be part of a broad education which will develop insights and understandings about social arrangements. Its intent is to prepare the student to live a satisfying and meaningful life and to pursue a career in areas where critical insight and breadth of perspective are criteria of success. The areas include a wide range of occupations in government, business and public service. A major in sociology provides a sound background for advanced study not only in sociology and other social behavioral sciences but in social welfare, corrections, recreation, educational administration and other applied fields. It also provides a useful background for professions such as the law and the ministry.

The sociology major requires a minimum of 28 semester hours, 12 of which are at the 400 level and must include Sociology 497 - senior seminar.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Science (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GSD	English Composition ¹ and one of 117, 118, or 119	3	2
GSD	Speech (select) ¹	2	-
GSD	Math (select) ¹	4	-
GSE	Health and Physical Development (select) ¹	2	2
Elective ²		-	4
		<u>14</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB-203	The Sociological Perspective ³	4	-
GSB-202	Introduction to Psychology ⁴	-	3
GSC	Humanities (select) ¹	3	3
Elective ²		4	4
Sociology		-	3
		<u>14</u>	<u>16</u>

¹To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

²Elective hours should be used in the following ways: 1) students may explore areas of interest, 2) they may select a minor to satisfy the Liberal Arts College requirement.

³Prerequisite to most sociology courses.

⁴Recommended but not required.

Sociology As A Major

There are numerous resources available to sociology students including a comprehensive sociology library in Morris Library, statistical laboratories, and computer facilities for those students interested in both humanistic and quantitative sociology. The curriculum provides flexibility in a variety of teaching, learning formats including seminars, individual projects and individual reading courses.

Dr. Jerry Gaston - Chairperson
Departmental Telephone - 618-453-2494
Location - Faner Building, Room 3384

RECOMMENDED PROGRAM

SPANISH¹
College of Liberal Arts

Programs of study leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classical Studies, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish is required to take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	-	3
GSB	Social Science (select) ³	3	3
GSC	Humanities (select) ³	3	-
GSD	English Composition ³ and one of 117, 118, or 119	3	2
Span 140a,b	Elementary Spanish ⁵	4	4
or			
Span 190 ²	Review of Elementary Spanish	(5)	-
GSE	Health and Physical Development (select) ³	2	-
GSD	Math (select) ³	-	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	3	3
GSB	Social Science (select) ³	-	3
GSC	Humanities (select) ³	3	-
GSD	Speech (select) ³	2	-
*Span 201a,b	Intermediate Spanish ⁵	3	3
*Span 220a,b	Intermediate Spanish Conversation ⁵	2	2
Elective ^{3,4}		3	3
		<u>16</u>	<u>14</u>

*Counts in the 36 hour Spanish major requirement.

¹See also the program under the College of Education.

²A review course on the first year level for students who have had two or more years of high school Spanish or equivalent.

³To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

⁴Elective hours should be used in the following ways: 1) students may explore areas of interest, 2) they may select a minor or satisfy the Liberal Arts college requirement.

⁵Proficiency exams can be taken in this course.

Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU-C.

Spanish As A Major

A major in Spanish consists of 36 semester hours in courses above the 100 level with at least 12 hours on the 300 level and 12 hours on the 400 level. A minor in Spanish consists of 18 semester hours in courses above the 100 level. At least one course in the history of Spain or Latin America is recommended for all students majoring in Spanish but the course may not be counted toward the major. One year of Portuguese is also recommended. A summer travel-study program in Mexico is available.

Dr. Eugene Timpe - Chairperson
Department Telephone - 618-536-5571
Location - Faner Building, Room 2166

RECOMMENDED PROGRAM

SPECIAL EDUCATION
College of Education

In the Department of Special Education, teachers are prepared to work with behaviorally disordered, mentally retarded, and learning disabled children. Students seeking the Standard Special Certificate will complete a 120 semester hour program leading to approval in one of the three handicap areas listed above. Students who wish to obtain joint certification in special education and elementary education must complete a 148 or 149 hour program.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	-
GSC 100	Music Understanding	2	-
GSC 101	Introduction to Art	-	3
GSD 101	English Composition	3	-
GSD 117 or 119	Expository or Creative Writing	-	2
GSD 107	Intermediate Algebra	4	-
GSE 201	Healthful Living	-	2
GSE	Health and Physical Development (select) ¹	-	2
ED 201	Teacher's Role in Public School Education	-	1
Electives		-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB 202	Introduction to Psychology	3	-
GSB 300	U.S. History 1492-1877	-	3
GSC	Humanities (select) ¹	3	-
GSC	Literature (select) ¹	-	3
GSD 153	Public Communications	2	-
ED 301	Human Growth, Development, and Learning	-	2
Mus 101	Music Fundamentals	2	-
Mus 302	Music in Special Education	-	2
Math 308	Mathematics for Elementary Teachers	3	-
Electives		-	4
		<u>16</u>	<u>14</u>

¹Refer to the section General Studies for the Transfer Student.

Must include one music and one art course. The Department of Special Education offers two plans leading to the Standard Special Certificate in special education teaching. See the SIU-C Undergraduate Catalog for specific information concerning the major.

Special Education As A Major

To include the following required courses: GSB 202, Introduction to Psychology; GSB 300, History of the United States 1492 to 1877; GSC 100, Music Understanding; GSC 101, Introduction to Art, or GSC 205, Innovation for the Contemporary Environment; Music 101, Fundamentals of Music for GSC (substitution); GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSD 107, Intermediate Algebra (or equivalent), or two hours from GSD 113, Introduction to Mathematics, and two hours from either GSD 110, Economic and Business Statistics, or GSD 112, Basic Concepts of Statistics; and one additional English GSC, GSD or departmental course.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

Dr. Wyatt Stephens - Department Chairman
Departmental Telephone - 618-453-2311
Departmental Location - Pulliam Hall, Room 127

RECOMMENDED PROGRAM

SPEECH¹
 College of Liberal Arts
 (Bachelor of Arts)

A major in speech is obtainable from the Department of Speech, through the College of Communications and Fine Arts, College of Liberal Arts, or the College of Education. Courses offered by the Speech Department include principles of speech, phonetics, semantics, discussion, argumentation and debate, persuasion, public address, the oral interpretation of prose and poetry, public relations, and interpersonal communications. Majors in this area may find positions in many phases of business and industry, particularly those relying on the effective communication of ideas and information.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	Social Science (select) ²	3	3
GSC	Humanities (select) ²	-	3
GSD	English Composition ² and one of 117, 118, or 119	3	2
GSD 152 or 153		2	-
GSD	Math (select) ²	-	4
GSE	Health and Physical Development (select) ²	2	2
Elective ^{2,3}		2	-
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB	Social Science (select) ²	-	3
GSC 200		3	-
GSC	Humanities (select) ²	-	3
*Sp 221		3	-
*Sp 261		-	3
Elective ^{2,3}		4	3
Elective ^{2,3}		3	-
		<u>16</u>	<u>15</u>

*Required for major.

¹This is not a professional concentration, but a liberal arts concentration. See also the programs under the College of Communications and Fine Arts and the College of Education.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Elective hours should be used in the following ways: 1) students may explore areas of interest, 2) they may select a minor or satisfy the Liberal Arts college requirement.

Speech As A Major

A secondary concentration (minor) is a requirement for a major in Speech within the College of Liberal Arts.

Dr. Ed McGlone - Chairperson
 Department Telephone - 618-453-2291
 Location - Communications Building, Room 2002

RECOMMENDED PROGRAM

SPEECH

(General Speech)

College of Communications and
Fine Arts

A major in the Department of Speech provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and instructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. Program specializations are available in (1) General Speech, (2) Oral Interpretation, (3) Speech Education, (4) Public Relations, and advisement for (5) Special Majors. A degree in speech enables the student to secure employment in a variety of professions. General Speech and Public Relations majors are fully prepared to accept positions in such areas as advertising, market research, corporate and consumer relations, all levels of government administration, and related agency work. Speech Education majors are successfully placed as teachers from sixth grade through senior high school. Oral Interpretation majors often pursue careers in theatre, radio and television entertainment, publishing companies, literary criticism, writing, and education. Traditionally, speech majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	3	3
GSC	Humanities (select) ¹	3	-
*GSC 200	Oral Interpretation	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Interpersonal Communications/ Public Communications	-	2
GSE	Health and Physical Development Activity	1	1
Electives		3	3
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	-	3
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	3	-
GSD	Mathematics (select) ¹	-	4
GSE	Health and Physical Development (select) ¹	1	1
*Spch 221	Public Communication II	3	-
*Spch 230	Introduction to Speech Education	1	-
*Spch 262	Interpersonal Communication II	-	3
Electives		4	4
		<u>15</u>	<u>15</u>

*Departmental requirements.

¹Refer to section General Studies for the Transfer Student.

Speech As A Major

No minor required; no foreign language required.

The Speech Department utilizes direct advisement of all new, transfer, and continuing students.

Graduate degrees (M.A., M.S., and Ph.D.) are available in Speech. Students utilize freedom of electives to build desired specialization.

Dr. Edward McGlone - Chairman

Dr. Richard L. Lanigan - Advisement

Departmental Telephone - 618-453-2291

Departmental Location - Communications Building, Room 2002

RECOMMENDED PROGRAM

SPEECH

(Speech Education)
College of Education

A major in the Department of Speech provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and instructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. Program specializations are available in (1) General Speech, (2) Oral Interpretation, (3) Speech Education, (4) Public Relations, and advisement for (5) Special Majors. A degree in speech enables the student to secure employment in a variety of professions. General Speech and Public Relations majors are fully prepared to accept positions in such areas as advertising, market research, corporate and consumer relations, all levels of government administration, and related agency work. Speech Education majors are successfully placed as teachers from sixth grade through senior high school. Oral Interpretation majors often pursue careers in theatre, radio and television entertainment, publishing companies, literary criticism, writing, and education. Traditionally, speech majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
*GSB 202	Introduction to Psychology	3	-
*GSB 212	Introduction to American Government and Politics	-	4
*GSC 203	Drama and Arts of the Theater	2	-
*GSC 200	Literary Experience in Action	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
*GSD 153 or 152	Public Communication/Interpersonal Communication	-	2
GSE	Health and Physical Development Activity	1	1
*GSE 201	Healthful Living	2	-
*ED 201	Teacher's Role in Public School Education	1	-
		15	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	-	4
GSD	Mathematics (select) ¹	4	-
*Spch 221	Public Communication II	3	-
*Spch 230	Introduction to Speech Education	1	-
*Spch 261	Discussion and Conference	-	3
*ED 301	Human Growth, Development and Learning	2	-
*Spch 262	Interpersonal Communication II	-	3
Electives		3	3
		16	16

*Departmental requirements.

¹Refer to section General Studies for the Transfer Student.

College of Education requires for certification: GSB 212 or 300, GSD 101, GSD 117, 118 or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, and one additional English course from GSC, GSD or department.

See also Speech in the College of Communications and Fine Arts. The Speech Department utilizes direct advisement of all new, transfer, and continuing students. The Speech Department strongly recommends that students pursue the B.S. degree in the College of Communications and Fine Arts.

Speech Education As A Major

Admission to the university does not assure admission to the Teacher Education Program. See Teacher Education program explained elsewhere in this text.

Dr. Edward McGlone - Department Chairman
Dr. Randall Bytwerk - Advisement
Departmental Telephone - 618-453-2291
Departmental Location - Communications Building, Room 1003

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

SPEECH
 (Speech Education)
 College of Communications and
 Fine Arts

A major in the Department of Speech provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and instructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. Program specializations are available in (1) General Speech, (2) Oral Interpretation, (3) Speech Education, (4) Public Relations, and advisement for (5) Special Majors. A degree in speech enables the student to secure employment in a variety of professions. General Speech and Public Relations majors are fully prepared to accept positions in such areas as advertising, market research, corporate and consumer relations, all levels of government administration, and related agency work. Speech Education majors are successfully placed as teachers from sixth grade through senior high school. Oral Interpretation majors often pursue careers in theatre, radio and television entertainment, publishing companies, literary criticism, writing, and education. Traditionally, speech majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
*GSB 202	Introduction to Psychology	3	-
*GSB 212	Introduction to American Government and Politics	-	4
*GSC 203	Drama and Arts of the Theater	2	-
*GSC 200	Literary Experience in Action	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
*GSD 153 or 152	Public Communication/ Interpersonal Communication	-	2
GSE	Health and Physical Development Activity	1	1
*GSE 201	Healthful Living	2	-
*ED 201	Teacher's Role in Public School Education	1	-
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Studies (select) ¹	-	3
GSC	Humanities (select) ¹	-	4
GSD	Mathematics (select) ¹	4	-
*Spch 221	Public Communication II	3	-
*Spch 230	Introduction to Speech Education	1	-
*Spch 261	Discussion and Conference	-	3
*ED 301	Human Growth, Development and Learning	2	-
*Spch 262	Interpersonal Communication II	-	3
Electives		3	3
		<u>16</u>	<u>16</u>

*Departmental requirements.

¹Refer to section General Studies for the Transfer Student.

College of Education requires for certification: GSB 212 or 300, GSD 101, GSD 117, 118 or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, and one additional English course from GSC, GSD or department.

See also Speech in the College of Education.

Speech Education As A Major

A student interested in the major should become aware of the requirements for entrance into the Formal Teacher Education Program. The Speech Department utilizes direct advisement of all new, transfer, and continuing students. The Speech Department strongly recommends that students pursue the B.S. degree in the College of Communications and Fine Arts.

Dr. Edward McGlone - Department Chairman
 Dr. Beth Norwood - Advisement
 Departmental Telephone - 618-453-2291
 Departmental Location - Communications Building, Room 2002

Dr. Harold DeWeese - Chief Academic Advisor for the College of Education
 Telephone - 618-536-2329
 Location - Wham Building, Room 108

RECOMMENDED

SPEECH

(Oral Interpretation)
College of Communications and
Fine Arts

A major in the Department of Speech provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and instructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. Program specializations are available in (1) General Speech, (2) Oral Interpretation, (3) Speech Education, (4) Public Relations, and advisement for (5) Special Majors. A degree in speech enables the student to secure employment in a variety of professions. General Speech and Public Relations majors are fully prepared to accept positions in such areas as advertising, market research, corporate and consumer relations, all levels of government administration, and related agency work. Speech Education majors are successfully placed as teachers from sixth grade through senior high school. Oral Interpretation majors often pursue careers in theatre, radio and television entertainment, publishing companies, literary criticism, writing, and education. Traditionally, speech majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
GSB	Social Studies (select) ¹	-	3
*GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select) ¹	3	-
*GSC 200	Literary Experience in Action	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
GSD 152 or 153	Interpersonal Communication/Personal Communication	-	2
*GSE 103d or 113d	Dance	2	-
Electives		<u>3</u>	<u>3</u>
		17	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
GSB	Social Studies (select) ¹	3	-
GSC	Humanities (select) ¹	-	3
GSD	Mathematics (select) ¹	-	4
GSE	Health and Physical Development Activity	-	2
*Spch 221 or 261	Public Communication II or Discussion/ Conference	3	-
*Spch 262	Interpersonal Communication II	3	-
*Thea 203	Voice and Diction	2	-
*Thea 207	Fundamentals of Theatrical Design	-	2
*Eng Lit	Recommended by Department	-	3
Electives		<u>3</u>	<u>3</u>
		17	17

*Departmental requirements.

¹Refer to section General Studies for the Transfer Student.

Oral Interpretation (Speech) As A Major

No minor required; no foreign language required. The Speech Department utilizes direct advisement of all new, transfer, and continuing students.

Graduate degrees are available in Speech. Students utilize freedom of electives to build desired specialization.

Dr. Edward McGlone - Department Chairman
Departmental Telephone - 618-453-2291
Departmental Location - Communications Building, Room 2002

RECOMMENDED PROGRAM

SPEECH

(Public Relations)

College of Communications and
Fine Arts

A major in the Department of Speech provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and instructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. Program specializations are available in (1) General Speech, (2) Oral Interpretation, (3) Speech Education, (4) Public Relations, and advisement for (5) Special Majors. A degree in speech enables the student to secure employment in a variety of professions. General Speech and Public Relations majors are fully prepared to accept positions in such areas as advertising, market research, corporate and consumer relations, all levels of government administration, and related agency work. Speech Education majors are successfully placed as teachers from sixth grade through senior high school. Oral Interpretation majors often pursue careers in theatre, radio and television entertainment, publishing companies, literary criticism, writing, and education. Traditionally, speech majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	3
*GSB 202	Introduction to Psychology	3	-
*GSB 203	The Sociological Perspective	-	4
GSC	Humanities (select) ¹	3	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select) ¹	-	2
*GSD 153 or 152	Public Communication/Interpersonal Communication	2	-
GSE	Health and Physical Development Activity	1	1
*Acct 210	Accounting Principles and Control	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ¹	3	-
*GSB 211	Contemporary Economics	3	-
*GSB 212	Introduction to American Government and Politics	4	-
GSC	Humanities (select) ¹	-	3
GSD	Mathematics (select) ¹	4	-
GSE	Health and Physical Development Activity	2	-
*Spch 326	Persuasion	-	3
*R&T 300m	Radio and Television Writing Performance Production	-	4
*Jrnl 300	Mass Media in Modern Society	-	3
*Jrnl 310	Writing for the Mass Media	-	3
		<u>16</u>	<u>16</u>

*Departmental requirements.

¹Refer to section General Studies for the Transfer Student.

Note: Students must demonstrate proficiency in typing at least 30 words per minute.

Public Relations (Speech) As A Major

The public relations specialization is an interdisciplinary program with a focus on communication studies designed with the assistance of and approved by the Public Relations Society of America. The Speech Department utilizes direct advisement of all new, transfer, and continuing students.

Membership in the Raymond D. Wiley Chapter of the Public Relations Student Society of America provides opportunities for internships, field trips, job placement, involvement in on and off campus public relations projects and association with professional practitioners.

Dr. Edward McGlone - Department Chairman

Mr. Ray Wiley - Advisement

Departmental Telephone - 618-453-2291

Departmental Location - Communications Building, Room 2002

RECOMMENDED PROGRAM

SPEECH (Special Major) College of Communications and Fine Arts

In addition to the regular Speech Major specialization, the department encourages a student with special interests and needs to design his or her own major program. A special major is developed in the following manner:

1. The student should consult the Special Major Advisor of the Speech Department.
2. The student in consultation with the advisor will draft a program which is coherent and unified, showing the courses he or she plans to take, and explaining the purpose of the courses.
3. The completed program should have the support of at least one faculty sponsor and the dean or deans of the academic units involved.
4. Final approval including the title designation of the major must come from the dean of university programs.

The special major must include the standard General Studies requirements, plus a minimum of 28 semester hours attributable to the special major. The Speech Department is prepared to sponsor special majors in the following topics:

- | | |
|---------------------------------|------------------------------------|
| 1. Human Communication | 14. Performing Arts |
| 2. Recreational Communication | 15. Phenomenology of Communication |
| 3. Political Communication | 16. Multi-Media Communication |
| 4. Transactional Communication | 17. Animal Communication |
| 5. Small Group Communication | 18. Language Behavior |
| 6. Interpersonal Communication | 19. Business Communication |
| 7. Public Communication | 20. Agricultural Communication |
| 8. Intra-personal Communication | 21. Communication Studies |
| 9. Transracial Communication | 22. Communication Arts |
| 10. Intercultural Communication | 23. Legal Communication |
| 11. Philosophy of Communication | 24. Marketing Communication |
| 12. Biomedical Communication | 25. Organizational Communication |
| 13. Instructional Communication | |

A student interested in the special major should become aware of the technical requirements for approval of the special program. The Speech Department utilizes direct advisement of all new, transfer, and continuing students. Community college counselors and/or their students should feel free to contact Dr. Richard Lanigan for additional information on these special majors. We urge you to do so where questions arise concerning the articulation of interdepartmental courses.

Dr. Edward McGlone - Department Chairman
Dr. Richard L. Lanigan - Advisement
Departmental Telephone - 618-453-2291
Location - Communications Building, Room 2002

Dr. John Dotson - Director, President's Scholars
and Special Major Programs
Telephone - 618-536-2189
Location - Woody Hall, Wing C, Room 127

RECOMMENDED PROGRAM

SPEECH PATHOLOGY AND AUDIOLOGY
 (Clinical Specialization)
 (Public School Specialization)
 College of Communications and
 Fine Arts

The program in speech pathology and audiology has as its objective the training of qualified personnel to work with people impaired in either speech or hearing. The undergraduate curriculum is broad in scope and gives the student the necessary background for the professional program offered at the master's level. Both state and national certification require the master of science degree.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Introduction to Biology	3	-
*GSA 209	Principles of Physiology	-	3
*GSB 202	Introduction to Psychology	3	-
*GSB 203	The Sociological Perspective	3	-
GSC	Humanities (select) ¹	3	3
GSA, GSB, or GSC	Select ¹	-	3
GSD 101	English Composition	3	-
GSD 107	Intermediate Algebra	-	4
GSE 201	Healthful Living	-	2
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	(select) ¹	3	-
*GSB 206	Applied Child Development	3	-
GSC	(select) ¹	3	-
GSD 152	Interpersonal Communication or 153 Public Communication	-	2
GSE	Health and Physical Development (select) ¹	1	1
GSD 117	Expository Writing	2	-
PSYC 301	Child Psychology	-	3
SP&A 200	Phonetics	3	-
SP&A 203	Introduction to Speech Science	-	3
SP&A 205	Introduction to Speech Pathology	-	3
ED 201	Teacher's Role in Public Education** or PSYC 211 Research Methods in Psychology***	-	1 + 2
		<u>15</u>	<u>(4)</u> 15 (16)

* Required for Speech Pathology and Audiology majors.

** Public School Specialization, plus 2 hours of GS elective credit.

***Substitute for Clinical Specialization.

¹Refer to section: General Studies for the Transfer Student.

Speech Pathology and Audiology As A Major

Clinical experience is obtained for all students through work at the University's Clinical Center, the public schools in student teaching, special summer programs, the Marion Veterans Administration Hospital, A.L. Bowen Children's Center, the Anna State Hospital and area hospitals.

Students will be encouraged to plan programs of study to meet academic and practicum requirements for the Certificate of Clinical Competence of the American Speech and Hearing Association and the Standard Special Certificate - Certificate in Speech and Language Impaired.

Departmental Telephone - 618-453-4301

Department Location - Communications Building, Room 1003

RECOMMENDED PROGRAM

SPEECH PATHOLOGY AND AUDIOLOGY
(Public School Specialization)
College of Education

The program in speech pathology and audiology has as its objective the training of qualified personnel to work with people impaired in either speech or hearing. The undergraduate curriculum is broad in scope and gives the student the necessary background for the professional program offered at the master's level. Both state and national certification require the master of science degree.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GSA 115	Introduction to Biology	3	-
*GSA 209	Principles of Physiology	-	3
*GSB 202	Introduction to Psychology	3	-
*GSB 203	The Sociological Perspective	3	-
GSC	Humanities (select) ¹	3	3
GSA, GSB, or GSC	Select ¹	-	3
GSD 101	English Composition	3	-
GSD 107	Intermediate Algebra	-	4
GSE 201	Healthful Living	-	2
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	(select) ¹	3	-
*GSB 206	Applied Child Development	3	-
GSC	English, Elective in Humanities	3	-
GSD 152	Interpersonal Communication or 153 Public Communication	-	2
GSE	Health and Physical Development (select) ¹	1	1
GSD 117	Expository Writing	2	-
PSYC 301	Child Psychology	-	3
SP&A 200	Phonetics	3	-
SP&A 203	Introduction to Speech Science	-	3
SP&A 205	Introduction to Speech Pathology	-	3
ED 201	Teacher's Role in Public Education**	-	1 + 2
		<u>15</u>	<u>15</u>

*Required for Speech Pathology and Audiology majors.

**Public School Specialization, plus 2 hours of GS elective credit.

¹Refer to section: General Studies for the Transfer Student.

Preparation for teacher certification should include the following courses taught via General Studies: GSB 202, Introduction to Psychology; GSB 212 or GSB 300, GSD 101, GSD 117 or 118 or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, and one additional English course from GSC, GSD or department.

Speech Pathology and Audiology As A Major

Clinical experience is obtained for all students through work at the University's Clinical Center, the public schools in student teaching, special summer programs, the Marion Veterans Administration Hospital, A.L. Bowen Children's Center, the Anna State Hospital and area hospitals.

Students will be encouraged to plan programs of study to meet academic and practicum requirements for the Certificate of Clinical Competence of the American Speech and Hearing Association and the Standard Special Certificate - Certificate in Speech and Language Impaired.

Departmental Telephone - 618-453-4301

Department Location - Communications Building, Room 1003

Chief Academic Advisor

Departmental Telephone - 618-536-2329

Location - Wham Building, Room 108

RECOMMENDED PROGRAM

THEATER¹

(Acting-Directing Option)
 (Design-Technical Option)
 (Playwriting-Dramatic Literature Option)
 (Dance Option)
 College of Communications and Fine Arts

Instruction and training in all phases of dramatic production for the stage and in basic techniques for dramatic production in television, radio, and motion pictures are provided.

Education for dramatic production entails (1) training and practice in acting, directing, and technical production (stage management, crew work, the planning and execution of costumes, lighting, and scenery); (2) understanding of the essential nature of theater art through study of theater esthetics, history, and criticism; (3) survey of theater management practice; (4) a study of the principles and techniques of playwriting and; (5) a knowledge of dramatic literature.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	-
GSB	Social Studies (select) ²	3	3
GSC 203	Drama and Arts in Theater	2	3
GSD 101	English Composition	3	2
GSD 152	Interpersonal Communications	2	-
GSD 107, 110, 112	Basic College Math (select one) ²	-	4
GSE	Health and Physical Development (select) ²	2	2
*Thea 203	Voice and Diction	-	2
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ²	3	3
GSB	Social Studies (select) ²	3	-
GSC	Humanities (select) ²	-	3
*Thea 211b,c	Staging Techniques	2	2
*Thea 213	Stage Movement	2	-
*Thea 217	Acting	2	2
*Thea 207	Fundamentals of Theatrical Design	2	-
Electives ³		3	6
		<u>17</u>	<u>16</u>

*Required courses for a major in Theater.

¹See also the programs under the College of Liberal Arts.

²To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

³Students should consult with the department regarding the selection of courses to fulfill this requirement.

Theater As A Major

No minor is required. Graduate degrees available.

The Southern Players, under the supervision of the Theater faculty, produce each year five full-length plays, and three programs of original one-acts. Each fall the Touring Theater, a troupe composed of students, tour Southern Illinois for several weeks, performing daily a full-length play for adults and a play for children. Each summer a resident stock company produces a playbill in the air-conditioned University Theater.

Many opportunities for practical experience with more production activity than most theater departments.

A few tuition scholarships are available.

Students can participate in the production of new plays.

Numerous opportunities available to see Broadway touring shows brought to campus.

Dr. Joseph Talarowski - Chairman

Departmental Telephone - 618-453-5741

Department Location - Communications Building, Room 1033

RECOMMENDED PROGRAM

THEATER^{1,2}
College of Liberal Arts
(Bachelor of Arts)

Instruction and training in all phases of dramatic production for the stage and in basic techniques for dramatic production in television, radio, and motion pictures are provided.

Education for dramatic production entails (1) training and practice in acting, directing, and technical production (stage management, crew work, the planning and execution of costumes, lighting and scenery); (2) understanding of the essential nature of theater art through study of theater esthetics, history, and criticism; (3) a survey of theater management practices; (4) a study of the principles and techniques of playwriting and; (5) a knowledge of dramatic literature.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	3	-
GSB	Social Science (select) ³	-	3
GSC	Humanities (select) ³	3	-
GSC 203		-	3
GSD	English Composition ³ and one of 117, 118, or 119	3	2
GSE	Health and Physical Development	2	2
GSD	Math (select) ³	4	-
Elective ³		-	4
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA	Science (select) ³	3	3
GSB	Social Science (select) ³	3	3
GSC	Shakespeare	3	-
GSD	Speech (select) ³	-	2
*Thea 211a,b		2	2
*Thea 207		2	-
*Thea 217		-	2
Elective ^{3,4}		3	3
		<u>16</u>	<u>15</u>

*Required courses for a major in Theater.

¹See also the programs under the College of Communications and Fine Arts and the College of Education.

²This is a liberal arts concentration, not a professional concentration.

³To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

⁴Elective hours should be used in the following ways: 1) students may explore areas of interest, (2) they may select a minor or satisfy the Liberal Arts College requirement.

Theater As A Major

No minor required. Graduate degrees available. Tuition scholarships are available. Students can participate in the production of new plays.

The Southern Players, under the supervision of the Theater faculty, produce each year five full-length plays and three programs of original one-acts. Each fall the Touring Theater, a troupe composed of students tour Southern Illinois for several weeks, performing daily a full-length play for adults and a play for children. Each summer a resident stock company produces a five-production playbill in the air-conditioned University Theater.

Many opportunities for practical experience with more production activity than most theater departments. Numerous opportunities available to see Broadway touring shows brought to campus.

Dr. Joseph Talarowski - Chairman
Department Telephone - 618-453-5741
Location - Communications Building, Room 1033

RECOMMENDED PROGRAM

ZOOLOGY¹
College of Education

A curriculum developed in zoology provides one with a knowledge of animals, their biology and conservation. The 22 faculty members of the Department of Zoology represent a wide range of these professional zoological disciplines. A wide variety of courses is offered in the biologically rich and diverse environment of Southern Illinois with excellent study facilities in a new \$11 million life science building equipped with specialized laboratories, computer facilities, research museum, and animal quarters. Associated are the Cooperative Fisheries and Wildlife Laboratories which make important contributions to the education of many undergraduates.

The department's faculty and graduate students provide personal opportunities for student introduction to interesting specialities. This is augmented by the unique INDIVIDUALIZED CURRICULUM prepared for each student majoring in zoology. Arrangements are made through the Director of Undergraduate Studies for each student to select a faculty advisor to plan with him his specific program of courses in zoology and supporting areas (usually other biological sciences, math and chemistry).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 212 or 300	American Government and Politics or U. S. History 1492-1877	4	-
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select) ²	-	2
GSE 201	Healthful Living	-	2
GSE	Health and Physical Development Activity (select) ²	1	-
*Math 111	College Algebra and Trigonometry	5	-
Zool 120a,b	Introduction to Invertebrate and Vertebrate Zoology	4	4
**Chem 224	Introduction to Chemical Principles	-	5
**Chem 225	Introduction to Laboratory Techniques	-	2
		<u>17</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select) ²	3	3
GSC	English Elective in Humanities (select) ²	3	-
GSC	Humanities (select) ²	-	3
GSD 153	Public Communication	-	2
GSE	Health and Physical Development Activity	-	1
**Biol 305	Genetics - Classical and Molecular	3	-
**Biol 307	Environmental Biology	-	3
ED 201	Teacher's Role in Public School Education	1	-
Zool 300	Vertebrate Embryology	4	-
Zool Elective		-	4
		<u>14</u>	<u>16</u>

*Approved substitute for GSD Math.

**Approved substitutes for GSA.

¹Should also have a minor in Botany. See also the program under the College of Science.

²Refer to the section General Studies for the Transfer Student.

³Students pursuing a Bachelor of Science in Education are not required to complete a foreign language.

⁴Refer to the Undergraduate Catalog for specific major requirements.

Zoology As A Major

To include the following required courses: GSB 212, Introduction to American Government and Politics OR GSB 300, History of the United States 1492 to 1877; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental); Math 111 or 110a,b, College Algebra and Trigonometry.

Chief Academic Advisor
Telephone - 618-536-2329
Location - Wham Building, Room 108

RECOMMENDED PROGRAM

ZOOLOGY

College of Science
(Bachelor of Arts or
Bachelor of Science)

A curriculum developed in zoology provides one with a knowledge of animals, their biology and conservation. The 22 faculty members of the Department of Zoology represent a wide range of these professional zoological disciplines. A wide variety of courses is offered in the biologically rich and diverse environment of Southern Illinois with excellent study facilities in a new \$11 million life science building equipped with specialized laboratories, computer facilities, research museum, and animal quarters. Associated are the Cooperative Fisheries and Wildlife Laboratories which make important contributions to the education of many undergraduates.

The department's faculty and graduate students provide personal opportunities for student introduction to interesting specialties. This is augmented by the unique INDIVIDUALIZED CURRICULUM prepared for each student majoring in zoology. Arrangements are made through the Director of Undergraduate Studies for each student to select a faculty advisor to plan with him his specific program of courses in zoology and supporting areas (usually other biological sciences, math and chemistry).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select)	-	3
GSC	Humanities (select) ¹	-	3
GSD	English Composition	3	-
GSD	English Composition (select from D 117, 118, or 119)	-	2
Math 111 ²	College Algebra and Trigonometry	5	-
Elective or			
Chem 115 ³	Introductory General Chemistry	4	-
Chem 222a ³	Introduction to Chemical Principles	-	4
Zool 118	General Zoology	4	-
Zool 220a	Invertebrate Zoology	-	4
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB	Social Studies (select)	-	3
GSC	Humanities (select) ¹	2	-
GSD	Speech or alternate GSD	2	-
GSE	Health and Physical Development (select)	-	1
Chem 222b ³	Introduction to Chemical Principles	4	-
Math	Calculus 140 or 150	-	4
Zool 220b	Vertebrate Zoology	4	-
Biol 307	Environmental Biology	-	3
FL	Foreign Language	4	4
		<u>16</u>	<u>15</u>

¹College of Science requires one year of any foreign language.

²Math requirement in the College of Science is College Algebra and Trigonometry: Math 111 or 110a,b. GSD 107 or 1-1/2 years of high school algebra is a prerequisite to Math 111 and 110a.

³Chem 115 is for students who have less than one year of high school chemistry. Chem 222a,b or 224, 225 will satisfy Zoology Department requirements for inorganic chemistry. For some students, Chem 140a,b will be adequate.

Majors in zoology should consult with the Director of Undergraduate Studies in Zoology as soon as possible and arrange to develop an individualized curriculum under the supervision of a faculty advisor.

Zoology As A Major

A major in zoology is an appropriate beginning for those planning to specialize in teaching or research in the zoological sciences and allied fields such as conservation, environment protection, fisheries or wildlife management, dentistry, medicine, or veterinary medicine. Most positions are available in schools, local, state, and federal government agencies, museums, hospitals, and chemical, instrument, food and drug industries.

Graduate degree programs leading to M.A., M.S., and Ph.D. are available.

Dr. George Garoian - Director of Undergraduate Studies
Department Telephone - 618-536-2314
Location - Life Science II, 351 or 355D

SCHOOL OF TECHNICAL CAREERS

B.S. in Technical Careers
Architectural Technology
Automotive Technology
Aviation Technology
Avionics Technology
Commercial Graphics--Design
Commercial Graphics--Production
Construction Technology--Building
Construction Technology--Civil
Correctional Services
Dental Hygiene

Dental Laboratory Technology
Electronic Data Processing
Electronics Technology
Law Enforcement
Photographic and Audio-Visual Technology
Mortuary Science and Funeral Service
Physical Therapist Assistant
Secretarial and Office Specialties
Tool and Manufacturing Technology
(Numerical Control)
Associate Degree in Nursing

The School of Technical Careers, established in 1973, provides both two-year college-level programs and a unique baccalaureate program in technical careers. The associate degree programs qualify students for employment at the semi-professional and technical level in industry, the allied health occupations, and business. A combination of technical courses and general education courses is included in each program to provide a comprehensive preparation for occupational competence.

Scientific and technical changes have increased the possibilities for employment at the technician's level. For every professional person, industry and business requires two to seven properly trained technicians.

The School of Technical Careers occupies facilities on the Carbondale campus and on the VTI campus nine miles east of Carbondale near Carterville on Old Route 13. Facilities for the aviation technology program are located at the Southern Illinois Airport, four miles west of Carbondale.

Accreditation: North Central Association of Colleges and Secondary Schools; Council on Dental Education of the American Dental Association; American Board of Funeral Service Educators.

Degrees Offered: Bachelor of Science, Associate in Art, and Associate in Applied Science.

Organizations

Alpha Eta Rho (International Aviation Fraternity), Phi Beta Lambda (International), Sigma Phi Sigma (Mortuary Science), STC Electronics Association, Delta Tau-Dental Lab, Junior SIU American Dental Hygiene Association, and Sigma Phi Alpha (Honorary Dental Hygiene Society).

Transfer Students

Transfer credit is evaluated for acceptance towards University and General Studies (general education) requirements by the Office of Admissions and Records after an admission decision has been made. The evaluation toward satisfying of specific curriculum requirements is done by the department or agency directing the specific curriculum.

The General Studies program at STC includes courses in the social studies (economics, government, and psychology); in the physical sciences (physics, chemistry, and mathematics); and in oral and written communication (speech, English composition, business correspondence, and technical writing). These courses are identical in most cases to those taught on the Carbondale campus, and credit earned in them is transferable if the STC associate degree student decides to continue beyond the two-year program.

For Further Information

Dean
School of Technical Careers
Phone 618-536-3301

STC - Academic Advisement
Telephone - 618-536-5578
or
Office of Admissions and Records
Woody Hall
Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

RECOMMENDED PROGRAM

BACHELOR OF SCIENCE School of Technical Careers

The baccalaureate degree program in technical careers is unique to the School of Technical Careers. It is designed to meet educational needs of the career-oriented student which are not filled by existing programs. Many types of previous educational and occupational experience may be applied to this program. The student, in consultation with advisors, develops a course of study designed to meet the individual's own career objectives.

For example, a student who plans to make a career in preventive dental hygiene may combine studies in health, food and nutrition, guidance, and physical education with the dental hygiene program to develop an individualized four-year program.

Or, the individual who wishes to go into graphic arts management might add studies in business, journalism, and administrative science to programs in commercial graphics or printing.

The student whose goal is operation of an automobile dealership or maintenance facility can combine business, management, and industrial technology courses with studies in automotive technology.

One who sees career possibilities in designing funeral home facilities might study architecture, interior design, and mortuary science.

Possible courses of study and combinations of interests in this program are as limitless as the needs of the students enrolled. Every student has a self-designed program to fit a self-defined career goal. There are no restrictions except those basic requirements for all baccalaureate programs set by the University.

Chairman, Baccalaureate Degree Program
School of Technical Careers
Location - 908 South Wall
Departmental Telephone - 618-453-5235

RECOMMENDED PROGRAM

ARCHITECTURAL TECHNOLOGY¹
 School of Technical Careers
 (Associate in Applied Science)

The technically-trained person who is able to work in the area between the draftsman who simply reproduces another's ideas and the licensed architect who creates will find a variety of positions available to him within the architectural profession.

A graduate of this program will have basic knowledge and skills for entry into this broad field, where he may advance into such specific areas as project coordination, specifications writing, architectural supervision, structural and mechanical engineering and architectural design.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
STC 102	Technical Writing	-	2
STC 105a,b	Technical Mathematics	4	-
STC 107a,b	Applied Physics	-	4
STC 153a,b	Oral Reporting and Conf. Methods	-	4
Arch 111	Architectural Drafting	7.5	-
Arch 112	Architectural Graphics	3.5	-
Arch 113	Architectural History	2	-
Arch 124	Architectural Drawings I	-	6
Arch 125	Architectural Design I	-	4
		<u>20</u>	<u>20</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Arch 214	Architectural Drawings II	6	-
Arch 215	Architectural Design II	4	-
Arch 216	Architectural Engineering I	4	-
Arch 217	Architectural Systems	2	-
Arch 218	Architectural Surveying	3	-
Arch 224	Architectural Drawings III	-	6
Arch 225	Architectural Design III	-	4
Arch 226	Architectural Engineering II	-	4
Arch 229	Architectural Estimating	-	2
Arch 220	Architectural Specifications	-	2
		<u>19</u>	<u>18</u>

¹A minimum of 77 hours of credit must be completed for graduation.

Architectural Drafting As A Major

The program is approved by the American Institute of Architects, with instruction by licensed architects.

Field trips to near-by cities to study historical and contemporary architecture are made each year. Allowance should be made in the student's budget for equipment and supplies.

Technical courses taught by faculty with years of experience give you an understanding of the architectural and design professions and other components of the building industry, the design and production process, and the historical, mathematical, and physical factors involved. The program covers building materials, systems, and construction, as well as preparation and interpretation of technical communications such as two- and three- dimensional models, charts, and architectural delineations.

Gene Trotter - Program Supervisor
 Departmental Telephone - 618-453-2524
 Location - Technology Building, Room A222

RECOMMENDED PROGRAM

AUTOMOTIVE TECHNOLOGY
 School of Technical Careers
 (Associate of Applied Science)

The fundamental objective of the Automotive Technology program at the School of Technical Careers is to provide students with an opportunity to obtain a solid foundation of knowledge, experience and skills that will assist in job entry and career advancement in automotive service.

The automotive service industry has been and will continue to experience rapid changes in technology. Perhaps the greatest changes will occur within the next decade as more fuel-efficient, less polluting motor vehicles become more commonplace. To service today's vehicles and the vehicles of the future will require highly skilled service technicians who will be skilled in the technologies that have been unknown until just a few short years ago. The skills that will be required will be varied and complex and will require service technicians to specialize in certain specific service areas.

This program recognizes the various needs of the industry and the needs of its future technicians and will offer an opportunity to obtain a solid foundation of knowledge and provide flexibility for a student to develop a specialty of the student's choosing.

During the first year, each student will be required to enroll in a series of core courses which will provide the student with the opportunity to obtain and develop those skills and technical information considered essential to all service technicians.

During the second year the student may choose any four of seven possible areas. In most cases, these courses will deal with advanced instruction in areas covered in the core courses. In each case, however, the student will select the courses, and after successfully completing this work and the general studies requirements the student will be eligible for the associate degree.

Instruction in the Automotive program is geared to a thorough presentation of basic fundamental concepts and reinforced with practical applications of those concepts with structured laboratory activities and service and diagnosis of live automobiles. In a vast majority of the courses all units studied will be working or operational units and dynamic testing of the units is an integral part of the course.

Additional expertise is provided to the program through an advisory committee composed of persons chosen for their knowledge of the field and their interest in education.

The student should expect to spend about \$300 for a basic tool kit consisting of both domestic and metric tools and supplies.

The associate degree can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra instructional educational experience.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
AUT 101	Automotive Engines and Fuel Systems Lab	4.5	-
AUT 121	Automotive Engines and Fuel Systems Theory	3	-
AUT 102	Engine Electrical Laboratory	4.5	-
AUT 122	Engine Electrical Theory	3	-
AUT 115	Related Shop Laboratory	2	-
GSD 101	English Composition	3	-
AUT 103	Drive Trains Laboratory	-	4.5
AUT 123	Drive Trains Theory	-	3
AUT 104	Brakes and Chassis Laboratory	-	4.5
AUT 124	Brakes and Chassis Theory	-	3
STC 105a	Technical Mathematics	-	2
STC 153a	Oral Reporting	-	2
		<u>20</u>	<u>19</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
AUT 20*	Automotive Laboratory	4.5	-
AUT 22*	Automotive Theory	3	-
AUT 20*	Automotive Laboratory	4.5	-
AUT 22*	Automotive Theory	3	-
STC 107a	General Systems Physics	2	-
STC 107b	General Systems Physics	2	-
AUT 20*	Automotive Laboratory	-	4.5
AUT 22*	Automotive Theory	-	3
AUT 20*	Automotive Laboratory	-	4.5
AUT 22*	Automotive Theory	-	3
STC 108	Automotive Chemistry Laboratory	-	2
STC 102	Technical Report Writing	-	2
		<u>19</u>	<u>19</u>

*200-Level Automotive Courses: With the help of his advisor and availability of courses, the student may choose any 4 (2 per semester) 200-level lab and theory combination automotive courses offered.

AUT 201-4.5	Automatic Transmissions Laboratory
AUT 221-3	Automatic Transmission Theory.
AUT 202-4.5	Automotive Power Accessories Laboratory
AUT 222-3	Automotive Power Accessories Theory
AUT 203-4.5	Automotive Air Conditioning Laboratory
AUT 223-3	Automotive Air Conditioning Theory
AUT 204-4.5	Advanced Engine Laboratory
AUT 224-3	Advanced Engine Theory
AUT 205-4.5	Advanced Electrical Systems Laboratory
AUT 225-3	Advanced Electrical Systems Theory
AUT 206-4.5	Advanced Fuel & Emissions Systems Laboratory
AUT 226-3	Advanced Fuel & Emissions Systems Theory
AUT 207-4.5	Advanced Brakes and Chassis Laboratory
AUT 227-3	Advanced Brakes and Chassis Theory

James White - Supervisor
Departmental Telephone - 618-985-4323
Location - STC Campus

RECOMMENDED PROGRAM

AVIATION TECHNOLOGY School of Technical Careers (Associate of Applied Science)

Upon graduation, the student receives the Associate in Technology degree, and depending on his area of concentration, is qualified to obtain the Federal Aviation Agency (FAA) Airman Airframe and Powerplant certificate as an A & P maintenance technician, or commercial pilot, and is eligible for the instrument flight rating or the flight rating or the flight engineer written examination.

Skilled technicians are in demand in the rapidly-growing aviation industry, both in airlines and general aviation. The industry demands men who possess a wide range of knowledge and ability provided by general education as well as special technical training.

The student studies reciprocating and jet powerplants, hydraulics, fuel systems, ignition-starting systems, carburetion and lubricating systems, instruments, and powerplant testing in coordinated classroom and laboratory work. The program is fully accredited by the Federal Aviation Administration, and the graduate is qualified to obtain the FAA airframe and powerplant certificate.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
STC 102	English Composition	-	2
STC 105a	Technical Mathematics	2	-
AT 110	Aircraft Structure--Fabrication and Repair	-	4
AT 111	Material and Metal Processing	5	-
AT 112	Aircraft Electricity	4	-
AT 113	Aircraft Instruments and FAR	4	-
AT 201	Applied Science	2	-
AT 203	Aerodynamics and Weight and Balance	-	5
AT 204	Aircraft Hydraulics	-	4
AT 205	Cabin Environment and Jet Transport Systems	-	5
		<u>20</u>	<u>20</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 202	Introduction to Psychology	3	-
GSD 153	Public Communications	-	2
AT 210	A & P Electrical and Ignition Systems	7	-
AT 211	Reciprocating Powerplant	5	-
AT 212	Carburetion, Lubrication and Fuel	5	-
AT 214	Propellers	-	4
AT 215	Powerplant Testing	-	5
AT 216	Jet Propulsion Powerplant	-	6
Elective	Social Science	-	2
		<u>20</u>	<u>19</u>
		<u>Summer*</u>	
AT 225	Aircraft Inspection	6	
AT 230	Powerplant Inspection	6	
		<u>12</u>	

*A minimum of 79 hours satisfied requirements for the associate degree; students who wish to qualify for the FAA A & P licenses are required to take an additional eight weeks of summer school.

Aviation Technology As A Major

Aviation technology facilities are located at the Southern Illinois Airport, three miles NNW of the Carbondale campus and three miles ENE of Murphysboro, Illinois.

Students entering the aviation technology program for the first time must purchase a basic tool kit which costs approximately \$225.

The Aviation Technology Department is acclaimed by many branches of the aviation industry and government agencies as the best school in the nation. It prepares students on animated training panels representing the modern jet transports such as: Boeing 707, 727, 747, and Douglas DC9 aircraft.

A minimum of 79 hours of credit is required for the associate degree.

Executives in the aviation industry constitute an advisory committee which serves the program.

Joseph Schafer - Program Supervisor
Departmental Telephone - 618-536-3371

Location - Southern Illinois Airport - Between Carbondale and Murphysboro, Illinois.

RECOMMENDED PROGRAM

AVIONICS TECHNOLOGY
 School of Technical Careers
 (Associate of Applied Science)

Technicians skilled in aviation electronics, or avionics, are needed for the development, installation, and maintenance of the sophisticated systems required for modern aviation.

The student in this program can take advantage of the combination of courses available through the Aviation Technology and Electronics Technology programs. He will learn basic AC and DE electricity, vacuum tubes and transistors, aircraft integrated flight systems, airborne radar systems, aircraft flight controls and instrumentation systems, transmitters and receivers, and aircraft communications and navigation systems.

The graduate will be able to install, maintain, test, and repair airborne communications and navigation systems and radar equipment. He will find opportunities for employment with the airlines, in general aviation, and in aircraft manufacturing.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	-	3
STC 105a,b	Technical Mathematics	4	-
STC 118	Applied Calculus	-	2
Elt 101	DC-AC Circuit Analysis Theory	5	-
Elt 102	Electronics Circuit Theory	-	5
Elt 111	DC-AC Circuit Analysis Lab	6	-
Elt 112	Electronics Circuit Lab	-	6
Elt 121	Electronics Devices	4	-
Elt 122	Propagation and Coupling	-	3
		<u>19</u>	<u>19</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Elt 203	Basic Avionics Control Theory	3	-
Elt 213	Basic Avionics Control Lab	3	-
STC 232	Labor-Management Problems	3	-
Ata 233	Aircraft Communication and Navigation Systems	5	-
Ata 234	Avionics Laboratory II	6	-
Ata 235	Aircraft Flight Control and Integrated Systems Theory	-	5
Ata 236	Avionics Laboratory III	-	5
Ata 237	Avionics Pulse and Radar Systems Theory	-	5
Ata 238	Avionics Laboratory IV	-	5
		<u>20</u>	<u>20</u>
		<u>Summer*</u>	
GSD 153	Public Communication	2	
Ata 301	Aircraft Electrical Power Distribution and Instrumentation	5	
Ata 302	Avionics Laboratory V	9	
Ata 303	FAR and FCC Regulations	4	
		<u>20</u>	

*To meet federal and industry requirements, the student should plan to take these additional courses offered as a post-associate specialty.

A minimum of 81 hours credit is required for the associate degree.

For further information and required course of study, contact:

E. A. Darosa - Program Supervisor
 Departmental Telephone - 618-536-3371
 Location - Southern Illinois Airport - Between Carbondale and Murphysboro, Illinois

RECOMMENDED PROGRAM

COMMERCIAL GRAPHICS--DESIGN
 School of Technical Careers
 (Associate in Art)

The advertising business is a growing field, presenting ever increasing opportunities for men and women who have creative and artistic ability. Trained people are needed to develop story illustrations, advertising layouts, billboard design, point-of-purchase displays, package designs, direct mail pieces, annual report designs, television commercials, title cards, finished lettering, fashion illustrations, airbrush and photo retouching and many others.

Students in this program develop multiple art skills so that they may qualify for initial positions in many different areas of advertising art and design. Each individual has a base upon which to build his or her career according to his or her own special interests and talents.

Each graduating design student is required to pass a vocabulary proficiency test and to have compiled a professionally acceptable portfolio of his work.

The student should expect to spend approximately \$560 for supplies, equipment, and materials over a two-year period.

An advisory committee whose members are active in the advertising and graphic design professions serves the program.

All faculty are professionals attracted from industry, hence are uniquely adept in the practical aspects of design.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
CG 110	Art Appreciation	3	-
CG 120	Artistic Anatomy and Color Perception I	4	-
CG 122	Technical Drawing for Graphic Design	4	-
CG 124	Graphic Layout and Typography I	4	-
GSD 101	English Composition	3	-
STC 153a	Oral Reporting (1r GSD 152)	2	-
CG 130	Artistic Anatomy and Color Perception II	-	4
CG 132	Airbrush and Photo Retouching	-	3
CG 133	Copyfitting	-	1
CG 134	Graphic Layout and Typography II	-	4
STC 199	Individual Study (Photography)	-	2
GSB 200	Level 3 Elective (Psychology Recommended)	-	3
		20	17
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
CG 210	Advertising Graphics	8	-
CG 224	Publication Graphics	8	-
STC 102	Technical Writing (Special Course for Majors)	2	-
STC 153B	Conference Methods (or GSD 153)	2	-
CG 222	Graphic Design and Advertising Illustration	-	8
CG 215	Dimensional Design	-	8
CG 230	Job Orientation	-	1
		20	17

A minimum of 74 hours is required for this program.

John L. Yack - Program Supervisor
 Departmental Telephone - 618-985-4241
 Location - STC Campus

RECOMMENDED PROGRAM

COMMERCIAL GRAPHICS--PRODUCTION
School of Technical Careers

The growing printing and publishing field offers many career opportunities for trained production specialists and persons with mechanical skills and abilities in management areas.

The Commercial Graphics--Production student may concentrate on management and production coordination or upon specialties within production such as lithographic stripping and plate-making.

The student will gain experience in the most up-to-date printing methods in a fully equipped shop. He will learn production and press procedures, lithographic photography, stripping, and plate-making, offset presswork, estimating and cost, and production and finishing processes.

The student who wishes to prepare for a career in management will study business law, office management and supervision, accounting, and other related subjects.

Interested students should contact the Dean's Office to check on availability of program.

Dean
School of Technical Careers
908 South Wall
Carbondale, Illinois 62901
Departmental Telephone - 618-536-5578

RECOMMENDED PROGRAM

CONSTRUCTION TECHNOLOGY--BUILDING School of Technical Careers (Associate of Applied Science)

These courses provide training which will enable the individual to qualify for positions of greater opportunity and responsibility after relatively short periods of apprenticeship or trade experience in the fields of construction supervision, cost estimating, management, and building construction.

Field trips to nearby cities to study and observe various types of construction are made each school year. Allowance should be made for the purchase of small amounts of equipment and supplies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
STC 105a,b	Technical Mathematics	4	-
STC 107a,b	Applied Physics	-	4
Cst 102a	Drafting	4	-
Cst 103a	Construction Materials	4	-
Cst 104	Building Construction Surveying	-	4
Cst 110	Basic Construction I	7	-
Cst 111	Basic Construction II	-	7
Cst 125a	Statics and Strength of Materials	-	3
		<u>19</u>	<u>18</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
Scr 105a	Accounting	-	3
STC 102	Technical Writing	2	-
Cst 125b	Statics and Strength of Materials	3	-
Cst 208	Construction Cost Estimating	-	3
Cst 210	Advanced Construction I	7	-
Cst 211	Advanced Construction II	-	7
Cst 213a	Structural Design	-	2
Elective	Social Studies	3	-
Elective	Humanities	-	3
		<u>18</u>	<u>18</u>

Construction Technology As A Major

Light building construction offers a multitude of opportunities in the areas of management and supervision.

The student will learn basic construction principles, surveying, drafting and properties of construction materials. He will be able to develop construction details and working drawings, to design steel and timber structural members, and to make construction cost estimates, including labor, materials, and schedules. He will learn code requirements and specifications affecting mechanical equipment such as plumbing, heating, air conditioning, and illumination. He will acquire the knowledge necessary for basic management and business positions through the study of business law, labor management relations, technical writing, physical sciences, and mathematics.

The student in this program will have the benefit of facilities of Construction Technology--Civil, as well as a well-equipped work utilization laboratory.

A minimum of 73 hours credit is required for the associate degree.

Harry Soderstrom - Program Supervisor
Departmental Telephone - 618-985-4000
Location - S.T.C. Campus

RECOMMENDED PROGRAM

CONSTRUCTION TECHNOLOGY--CIVIL
School of Technical Careers
 (Associate of Applied Science)

These courses provide training which will enable the individual to qualify for positions of greater opportunity and responsibility after relatively short periods of apprenticeship or trade experience in the fields of construction supervision, cost estimating, management, and building construction.

Field trips to nearby cities to study and observe various types of construction are made each school year. Allowance should be made for the purchase of small amounts of equipment and supplies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
STC 105a,b	Technical Mathematics	4	-
STC 107a,b	Applied Physics	-	4
Cst 101a,b	Surveying	7	7
Cst 102a,b	Drafting	4	4
Cst 103a	Construction Materials	4	-
Cst 125a	Statics and Strength of Materials	-	3
		<u>19</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
STC 102	Technical Writing	-	2
Cst 103b	Construction Materials	4	-
Cst 125b	Statics and Strength of Materials	3	-
Cst 201	Advanced Surveying	-	3
Cst 203	Hydraulics and Drainage	3	-
Cst 207	Construction Planning, Methods and Equipment	-	3
Cst 208	Construction Cost Estimating	-	3
Cst 213a,b	Structural Design	-	5
Elective	Humanities or Social Studies	3	-
		<u>16</u>	<u>16</u>

Construction Technology As A Major

Opportunities abound in the heavy construction industry for the technician who is trained to work in support of engineers or in supervisory or management positions. The graduate of this program may find a position anywhere in the world on such projects as dams, bridges, tunnels, waterway improvements, industrial structures, or in highway construction.

The student will gain basic knowledge of surveying, drafting and design, construction materials and methods, equipment, planning, and estimating. He will learn the principles of hydraulics and drainage and the effects of various soils on heavy construction. He will develop skills in writing and interpreting technical material, labor management relations, and other areas necessary to work successfully with engineers and construction crews.

The student will have the opportunity to supplement required on-campus laboratory and field work projects with a summer of cooperative work experience.

A minimum of 69 hours credit is required for the associate degree.

Harry Soderstrom - Program Supervisor
 Departmental Telephone - 618-985-4150
 Location - S.T.C. Campus

RECOMMENDED PROGRAM

CORRECTIONAL SERVICES School of Technical Careers (Associate in Art)

A growing demand for trained correctional workers is being created by increasing emphasis on rehabilitation of criminal offenders. These people are needed both in institutions and in community-based corrections.

This correctional services program has the two-fold purpose of providing a broad-based social science type curriculum to both the person entering the field and to presently employed personnel who wish to upgrade skills for advancement opportunities.

The student will learn the nature and effects of crime on both the perpetrator and the victim, methods used to combat crime in modern society, and various approaches to rehabilitation of the offender. He will spend one term in supervised internship working in a correctional agency or social service agency.

Persons already employed in the correctional field may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their work schedules.

Professionals in the field serve on an advisory committee which assists in the program.

A minimum of 62 hours credit is required for this major.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
CLE 103	Introduction to Criminal Justice	3	-
CLE 104	Treatment Methods in Criminal Justice	3	-
GSB 202	Introduction to Psychology	3	-
CLE 115	Interpersonal Relations in Criminal Justice	3	-
GSD 118	Technical Report Writing	-	2
CLE 106	Treatment Practicum	-	3
CLE 107	Supervision in Criminal Justice	-	3
GSB 203	The Sociological Perspective	-	4
GSD 153	Public Communications	-	3
CLE 220	Probation, Parole and Community Based Corrections	-	3
		<u>15</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 212	American Government and Politics	4	-
CLE 105	Criminal Behavior	3	-
CLE 209	Criminal Law I	3	-
Electives	(From GSA, GSC or GSE)	4	-
CLE 210	Criminal Law II	-	3
CLE 217	Correctional Administration	-	3
CLE 215	Supervised Internship in Criminal Justice	-	9
		<u>14</u>	<u>15</u>

Joe Dakin - Program Supervisor
Departmental Telephone - 618-453-5262
Location - Faner B 4343

RECOMMENDED PROGRAM

DENTAL HYGIENE

School of Technical Careers
(Associate in Art)

The dental hygienist is an important member of the dental health team, and is the only one other than the dentist who is permitted by law to work directly in the mouth of the patient. Both men and women enjoy the profession. All states require the dental hygienist to be licensed and to work under the supervision of a licensed dentist. The hygienist's area of responsibility includes oral prophylaxis (scaling and polishing of the teeth), chairside assisting, x-ray examinations, laboratory techniques, office and administrative procedures, dental health education, and other areas of preventive dentistry.

This program is fully accredited by the Council on Dental Education of the American Dental Association. Available facilities restrict first-year enrollment to 56 students. Interested persons should contact both the SIU Office of Admissions and the dental hygiene faculty. Special application material is included in requirements for admission to the program. Applicants must take the Dental Hygiene Aptitude Test by November of the year preceding the fall in which they wish to enter in order to have the results evaluated with other required material.

This test is sponsored by the American Dental Hygiene Assn., 211 E. Chicago Ave., Chicago, Ill. 60611, and information on testing sites and dates is available from that organization.

Special dental hygiene requirements must be completed by January 15 of the year in which the student plans to enter, or the application will automatically be disqualified.

This means, for example, that applicants wishing to enroll in the fall of 1979 must take the aptitude test no later than November 1978, and complete the admission process by January 15, 1979.

The dental hygiene student has expenses of about \$1500 in addition to university tuition and fees. This covers the cost of instruments, uniforms, liability insurance, and a basic professional library.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
GSD 153	Public Communication	2	-
Chem 140a	Survey of Chemistry	4	-
DH 136	Anatomy of the Head and Neck	4	-
DH 137a	Pre-Clinical Dental Hygiene	5	-
DH 215	Ethics, Jurisprudence, and Office Management	1	-
Chem 140b	Survey of Chemistry	-	4
Physio 301	Survey of Human Anatomy	-	4
GSA 209	Principles of Physiology	-	3
DH 133	Histology and Embryology	-	2
DH 137b	Pre-Clinical Dental Hygiene	-	5
DH 218a	Dental Radiology	-	2
		<u>19</u>	<u>20</u>

Summer Session (8 weeks)

DH 134	Microbiology	4
DH 217	Nutrition	2
DH 209	Clinical Dental Hygiene	3
DH 218b	Dental Radiology	2
		<u>11</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
DH 138	Pathology	3	-
DH 220a	Community Dentistry	3	-
DH 201	Dental Materials and Assisting	4	-
DH 210a	Clinical DH and Radiology	6	-
DH 240	Dental Pharmacology and Anesthesia	2	-
DH 241	Advanced Periodontology	2	-
GSB 202	Intro to Psychology	-	3
GSB 203	Social Perspectives	-	4
DH 220b	Community Dentistry	-	3
DH 210b	Clinical DH and Radiology	-	6
DH 211	Seminar	-	2
		<u>20</u>	<u>18</u>

A minimum of 88 hours is required for this program.

Mary K. Edwards - Program Supervisor
Departmental Telephone - 618-985-4859
Location - STC Campus, Building F1 & F3

RECOMMENDED PROGRAM

DENTAL LABORATORY TECHNOLOGY
School of Technical Careers
 (Associate in Art)

Dental Laboratory Technology is concerned with the construction of replacements for natural teeth which have been lost--whether by disease or accident. A technologist trained in this art is called a Dental Laboratory Technician.

The relationship of the dental technician to the dentist is similar to that of the pharmacist to the physician or the optician to the eye specialist. An important member of the dental health team, his skill and knowledge are invaluable. He works under the guidance and instruction of the dentist, thus permitting the dentist to devote more of his time to chair-side operative and restorative dentistry.

The Dental Technology program includes extensive study covering all phases of dental laboratory technology and leads to an associate in technology degree.

The program was designed so that students would receive not only technical training but such general education courses as would prepare them for a socially complex world. It is for this reason that approximately one-third of the total curriculum consists of general education courses.

The technical curriculum covers a complete study of dental morphology, fabrication of dental restorations and appliances in all the prosthetic phases of dentistry, dental material, professional ethics and other related subjects.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
STC 115a	Introduction to Chemistry (8 weeks)	2	-
STC 141	Introduction to Physiology	-	3
DT 102*	Tooth Anatomy	4.5	-
DT 103a*	Complete Dentures	4.5	-
DT 103b*	Advanced Complete Dentures	-	4.5
DT 104a*	Removable Partial Dentures	-	4.5
DT 104b*	Advanced Removable Partial Dentures	-	4.5
DT 105*	Dental Occlusion	4.5	-
DT 113a	Science of Dental Materials	-	2
DT 128	Oral Anatomy	-	1
DT 143	Orientation of Dental Technology	1	-
		19.5	19.5
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 153	Public Communication	-	2
STC 102	Technical Writing	2	-
STC 104	Business Mathematics	-	2
DT 113b	Science of Dental Materials	2	-
DT 202	Professional Ethics	1	-
DT 203*	Dental Orthodontics and Pedodontics	4.5	-
DT 204a*	Beginning Crown and Bridge	4.5	-
DT 204b*	Advanced Crown and Bridge	4.5	-
DT 206a*	Dental Ceramics	-	4.5
DT 206b*	Advanced Dental Ceramics	-	4.5
DT 208*	Precision Attachments	-	4.5
		18.5	17.5

*Five-week module.

Dental Laboratory Technology As A Major

This program is the first of its kind in the state of Illinois which is accredited by the Council on Dental Education of the American Dental Association.

The School of Technical Careers has been a pioneer in approved training for dental technicians and the curriculum and staff are fully accredited by the Council on Dental Education of the American Dental Association. The Council's standards are sufficiently high to insure that the graduate of such an accredited program has the best education it is possible to give in the time allocated. The staff is highly qualified for teaching this portion of the dental field, having enjoyed many years of experience in dental education and technology education. This is backed by years of practical experience in the entire field. Graduates are eagerly sought by the owners of the many ethical laboratories throughout the United States.

Each student is required to purchase a kit of instruments, at a cost of approximately \$200 per year, which he will retain after graduation.

Program Supervisor - Dennis Laake
 Departmental Telephone - 618-985-4333. Office - F-1, Room 106A
 Location - S.T.C. Campus, Building F-3, Room 131

RECOMMENDED PROGRAM

ELECTRONIC DATA PROCESSING
 School of Technical Careers
 (Associate in Applied Science)

The growth of electronic data processing both in the expansion of installations and in the complexity of hardware and software has increased the demand for competent computer programmers and systems analysts. Accurate and effective information processing is essential in any organization or institution. You can find a rewarding career in this field where skilled, professionally-trained people are essential.

Even though there are more computer programmers working today than ever before, data processing is still a growing, challenging field. The task of persons who design data processing application is becoming more complex with the increasing power of computers and related information processing equipment.

Graduates from the program are qualified to (1) apply currently available programming techniques to a defined problem with minimum supervision; (2) program and operate any particular computer with a minimum of orientation; (3) understand and master special techniques as the point of need occurs; and (4) communicate his properly documented programming decisions to other personnel concerned.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
Acct 11C, 120	Accounting	3	3
STC 102	Technical Writing	-	2
STC 104	Business Mathematics	2	-
EDP 101	Automatic DP Machines	8	-
EDP 104	Data Processing Applications	-	3
EDP 201	Assembler Language Programming	-	8
EDP 235	Business Statistics	-	2
Elective		2	-
		<u>18</u>	<u>18</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 212	Introduction to American Government and Politics	-	4
GSD 153	Public Communication	3	-
EDP 203	Job Control Language and Utilities	5	-
EDP 204	COBOL Programming	8	-
EDP 205	Systems Design and Development	3	-
EDP 206	RPG Programming	-	7
EDP 207	DP Project	-	6
Electives		2	2
		<u>21</u>	<u>19</u>

Electronic Data Processing As A Major

The Electronic Data Processing program is offered in a well-equipped center, with a curriculum designed to give you much more than a good general working knowledge of a programming language. You will have a sufficient depth of understanding to grow with new demands placed upon you.

In addition to laboratory courses which will provide you with a basic knowledge of computer programming, the curriculum includes computer applications and systems design courses and general education studies in accounting, statistics, and mathematics.

This program provides training in the technical skills underlying the operation and programming of data acquisition and computing equipment as applied to business systems. Punched card preparation, electromechanical machines operation, and electronic computers are processes and equipment used by the student who aspires to become a programmer.

A minimum of 75 hours of credit must be completed for graduation.

Andrew N. Kreutzer - Program Supervisor
 Location - Faner Building, A-1029
 Departmental Telephone - 618-453-2655

RECOMMENDED PROGRAM

ELECTRONICS TECHNOLOGY
 School of Technical Careers
 (Associate in Applied Science)

The Electronics Technology program provides instruction for the training of a semi-professional electronics technician who is capable of taking his place in industry in both indirect and direct support of the electronics engineer, and to provide training both practical and theoretical in all phases of electrical power transmission.

The student will gain a basic understanding of AC-DC and active element circuits so that he can design, build, test and analyze new types of circuitry. He will learn communication systems, digital circuits, and industrial systems in a theory-laboratory situation where he will develop the ability to solve problems and report his test results in data sheets, graphs and technical papers. He will learn to do diagnostic analyses and troubleshoot and repair electronics equipment.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	-	3
STC 105a,b	Technical Mathematics	4	-
STC 118	Applied Calculus	-	2
Elt 101	DC-AC Circuit Analysis Theory	5	-
Elt 102	Electronics Circuit Theory	-	5
Elt 111	DC-AC Circuit Analysis Lab	6	-
Elt 112	Electronics Circuit Lab	-	6
Elt 121	Electronics Devices	4	-
Elt 122	Propagation and Coupling	-	3
		<u>19</u>	<u>19</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
STC 101	Business Correspondence		
or			
STC 153b	Conference Methods	-	2
STC 102	Technical Writing	-	2
STC 107a,b	Physics	4	-
Elt 201	Telemetry and Industrial Circuits Theory	5	-
Elt 202	Digital Circuits Theory	-	5
Elt 211	Telemetry and Industrial Circuits Lab	6	-
Elt 212	Digital Circuits Lab	-	6
Elt 221	Electronic Systems Analysis	3	-
Elt 223	FCC Test Preparation		
or			
Elt 224	Computer Systems Application	-	3
		<u>18</u>	<u>18</u>

Electronics Technology As A Major

Graduates are employed by such concerns as General Electric, Bell Labs, Argonne Labs, I.B.M., General Tire and Rubber Co., General Telephone, Univac, and Los Alamos Labs. About eighty percent of these graduates work in indirect support positions and the remaining twenty percent in direct support positions.

During the early stages of the program, most instruction is directed toward basic principles of electricity and electronics. This is followed by communication systems, digital circuits, and industrial systems. These applications are based on both vacuum tubes and transistor and integrated circuitry.

Workbooks and supplies required for laboratory courses cost approximately \$150.

A minimum of 73 hours of credit must be completed for graduation.

Paul Harre - Program Supervisor
 Departmental Telephone - 618-453-5129
 Location - Neckers B-144

RECOMMENDED PROGRAM

LAW ENFORCEMENT
 School of Technical Careers
 (Associate in Art)

Law enforcement today demands a wide range of knowledge and ability to meet the complexities of modern society. This program is designed both for the individual entering the profession and for persons already serving in law enforcement who wish to upgrade their skills.

The student in this program will not be taught "police skills" that are taught in a police academy, such as firearms or personal defense. He will learn methods of crime control, criminal behavior, methods of crime detection, community problems in law enforcement, criminal law, and police administration. He will develop an understanding of people and of interpersonal relationships.

The student will spend one term prior to graduation working under supervision with a police agency.

Police officers may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their duty schedules.

Full transfer of credit is guaranteed to students who have completed certificate programs in law enforcement at cooperating community colleges.

An advisory committee made up of persons active in law enforcement assists the program.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
CLE 103	Introduction to Criminal Justice	3	-
CLE 105	Criminal Behavior	3	-
GSB 202	Introduction to Psychology	3	-
CLE 115	Interpersonal Relations in Criminal Justice	3	-
GSD 118	Technical Report Writing	-	2
CLE 107	Supervision in Criminal Justice	-	3
GSB 203	Sociological Perspective	-	4
CLE 220	Probation, Parole and Community Based Corrections	-	3
GSD 153	Public Communications	-	3
CLE 205	Criminal Investigation	-	3
		<u>15</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
CLE 209	Criminal Law I	3	-
GSB 212	American Government and Politics	4	-
CLE 221	Police Administration	3	-
Electives	(From GSA, GSC or GSE)	4	-
CLE 210	Criminal Law II	-	3
CLE 215	Supervised Internship in Criminal Justice	-	9
Electives	(From GSA, GSC or GSE)	-	3
		<u>14</u>	<u>15</u>

A minimum of 62 hours is required for this program.

Joe Dakin - Program Supervisor
 Departmental Telephone - 618-453-5262
 Location - Faner B 4343

RECOMMENDED PROGRAM

MORTUARY SCIENCE AND FUNERAL SERVICESSchool of Technical Careers
(Associate in Art)

Licensing and qualification requirements vary from state to state since laws governing the profession are enacted at a state level. Licensure in one state does not assume automatic qualification in another but most state boards have some reciprocal agreements with other states.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 115	Biological Science	3	-
GSB 202	General Psychology	3	-
GSD 101	English Composition	3	-
GSD 153	Public Communication	-	2
Acct 110	Accounting	-	3
Scr 208	Business Law	-	3
STC 101	Business Correspondence		
or			
STC 102	Technical Writing		
or			
STC 153a or b	Oral Reporting or Conf. Methods	-	2
MS 101	Orientation to Funeral Service	3	-
MS 102	Restorative Art	4.5	-
MS 108	Funeral Service Psychology	-	3
Elective	Health Education	-	2
		16.5	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
STC 115a,b	Inorganic, Organic Chemistry (8 weeks each)	5	-
MS 225a,b	Embalming Theory and Practice	4.5	4.5
MS 230	Mortuary Anatomy	4	-
MS 250a,b	Mortuary Management	3	3
MS 255	Embalming Chemistry (8 weeks)	-	2
MS 256	Microbiology	-	4.5
MS 257	Pathology	-	3
		16.5	17
		<u>Summer</u>	
MS 375a	Internship--Management	5	
MS 375b	Internship--Embalming	5	
		10	

Mortuary Science As A Major

The Illinois statute governing the practice of funeral directing and embalming indicates the following requirements for those individuals who would secure the funeral director's and embalmer's licenses:

1. A candidate must be at least twenty-one years of age, a citizen of the United States and a resident of the state of Illinois; who is of good moral character and temperate habits.
2. He must successfully complete one academic year in a college or university approved and recognized by the Illinois Department of Registration and Education in addition to successfully completing a course of instruction of at least one year duration in a professional school or college teaching the practice of funeral directing and embalming.
3. He must study funeral directing or embalming in the state of Illinois under a funeral director or embalmer licensed by the state for a combined period of one year as a registered trainee.
4. A candidate must successfully pass licensure examinations administered by the State Board of Examiners in Funeral Directing and Embalming.

Successful completion of the program meets the education requirements in Illinois and many other states.

Prospective students should contact the licensing body of the state in which they decide to attempt licensure.

Don Hertz - Program Supervisor
Departmental Telephone - 618-985-4313
Location - S.T.C. Campus, Building L-3, Room 102

RECOMMENDED PROGRAM

PHOTOGRAPHIC AND AUDIO-VISUAL

TECHNOLOGY

School of Technical Careers

(Associate in Applied Science)

The photographic and audio-visual technology major in the School of Technical Careers is unique in that all students complete a first year of core courses. The second year students may specialize in ultimate technical photographic laboratory curriculum or technical audio-visual curriculum.

Technical photographic courses are designed to prepare students as photographic laboratory technicians or photo finishers in industrial and commercial photographic processing agencies. Emphasis is placed on quality black and white and color photographic processes and materials. Students will study still photographic techniques in lecture/laboratory sessions and tour industrial and commercial photographic processing agencies to obtain practical understanding of commercial systems. The student should expect to invest approximately \$400 for the production of a portfolio and for the purchase of special photo chemicals and supplies. Second year students are to provide their own fully adjustable cameras.

Technical audio-visual courses are designed to prepare students to work with industrial, university, and public school audio-visual delivery systems. Graphic production courses will enable students to broaden their marketable skills by developing technical skills essential to the production of basic graphics for audio-visual systems. Emphasis is placed on the technical quality of the work. Students should expect to invest approximately \$300 for test equipment, tools, and graphic supplies.

Students selecting either specialization will find job opportunities throughout industry for quality technicians. Graduates are limited only by their own talent, motivation, and willingness to move to where jobs are available. Job pay is directly commensurate with the technician's ability, resourcefulness, and drive.

A minimum of 65.5 credit hours is required for the major in photographic and audio-visual technology with specialization in either photographic laboratory or audio-visual technology. This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
PAVT 111	Photo Processing I	4	-
PAVT 113	Photo Processing II (Process Camera)	4	-
PAVT 115	Audio-Visual Equipment Operation	6	-
STC 115a	Introduction to Chemistry (Inorganic)	2	-
PAVT 209	Graphics I--Basic Skills	-	6
PAVT 211	Photo Processing III (Color Positive)	-	6
STC 103	Fundamentals of Math	-	2
SCR 101a	Typewriting	-	2.5
		16	16.5

Technical Photo Lab Option

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
PAVT 215	Photo Processing IV (Color Negative)	6	-
PAVT 221	Photo Processing V	6	-
GSD 101	English Composition	3	-
STC 153a	Oral Reporting	2	-
PAVT 251	Photo Lab Management	-	10
STC 299	Individual Study	-	4
STC 102	Technical Writing (8 weeks)	-	2
		17	16

Technical Audio-Visual Option

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
PAVT 217	Maintenance & Repair of Audio-Visual Equipment	6	-
PAVT 219	Graphics II--Design, Planning and Production	6	-
GSD 101	English Composition	3	-
STC 153a	Oral Reporting	2	-
PAVT 275	Production of Multi Media Materials	-	6
PAVT 279	Practicum	-	6
STC 102	Technical Writing (8 weeks)	-	2
STC 299	Individual Study	-	2
		17	16

Robert White - Program Supervisor
 Departmental Telephone - 618-985-4211
 Location - STC Campus

RECOMMENDED PROGRAM

PHYSICAL THERAPIST ASSISTANT
School of Technical Careers
 (Associate in Art)

The Health Careers Council of Illinois reports that the field of physical therapy is one of the five most critical areas in which a manpower shortage exists. There are growing demands for physical therapy services in hospitals, extended care and nursing home facilities, and in private practices. The nation's concern and interest in improving our health care delivery system to the entire population should continue to provide opportunities for skilled workers in this field.

The physical therapist assistant is a skilled technician who works within the physical therapy service, which is under the direction of a physical therapist. The assistant is responsible to and supervised by the physical therapist.

A minimum of 70 credit hours is required for the associate degree.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 106	Chemistry for Non-Science Majors	3	-
Zool 118	Zoology	-	4
GSA 208	Physiology Laboratory	-	1
GSA 209	Principles of Physiology	-	3
GSB 202	Introduction to Psychology	-	3
GSD 101	English Composition	3	-
GSD 107	Basic College Mathematics	4	-
GSD 152	Interpersonal Communication	2	-
PTH 100	Physical Therapy Orientation	2	-
PTH 113	Therapeutic Modalities I (8 weeks)	-	1.5
PTH 207	Massage (8 weeks)	-	1.5
Elective		-	2
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GSA 101	Physics in Environment	3	-
HED 334s	First Aid	3	-
PEM 303	Kinesiology	-	2
Phs1 300	Human Anatomy	3	-
Psyc 301, 303, 304 or 305	Psychology	-	3
PTH 202	Physical Rehabilitation Techniques	2	-
PTH 203	Pathology	1	-
PTH 205	Physical Therapy Science	-	2
PTH 209	Therapeutic Exercise	-	3
PTH 213	Therapeutic Modalities II	2	-
PTH 214	Physical Therapy Science Practicum	-	3
Elective		-	3
		<u>14</u>	<u>16</u>
		<u>Summer</u>	
PTH 321	Clinical Internship	10	
PTH 322	Clinical Seminar	2	
		<u>12</u>	

Physical Therapist Assistant As A Major

The graduate under the supervision of the registered physical therapist will be able to administer such physical therapy techniques as: infra-red and ultra-violet light whirlpool baths, hot moist packs, diathermy, ultra-sound paraffin baths, massage, therapeutic exercise, gait training, and other activities of daily living and assist in record keeping and general physical therapy housekeeping.

In addition to the physical therapy activities, the physical therapist assistant will assist the registered physical therapist in more complex procedures such as: administering manual muscle tests, electrical muscle stimulation, and other diagnostic tests. He also observes, records and reports to his supervisor conditions, reactions, and responses related to his assigned duties.

Before graduation, the student will serve an internship of 12 weeks in two separate hospitals located away from the campus.

Ted Okita - Program Supervisor
 Departmental Telephone - 618-453-2361
 Location - Wham Education Building, Room 141

RECOMMENDED PROGRAM

ASSOCIATE DEGREE NURSE
 School of Technical Careers
 (Associate of Applied Science
 in Nursing)

The Associate Degree in Nursing Program offered through the Southern Illinois Collegiate Common Market is developed as an open curriculum model and is designed to provide career mobility for persons who have completed a practical nursing program or its equivalency through formal or informal methods. Students will be given an opportunity to validate past experiences through utilization of a comprehensive testing program. After assessment by the nursing faculty, an individualized prescriptive type educational program will be developed with each student.

This unique program is designed to prepare the student for the practice of nursing as defined in the Illinois Nurse Practice Act and meets the requirements for accredited schools in associate degree nursing in Illinois.

Upon satisfactory completion of the program, the student will be eligible to write the Illinois State Board Nursing Examination and to become a Registered Nurse.

First Year

Provide evidence of having graduated from an approved program of practical nursing or its equivalent.

Second Year

		<u>Fall</u>	<u>Spring</u>
ADN 201	Introduction to Nursing and Science	3	-
ADN 202	Maternal-Child Nursing Interventions	4	-
ADN 203	Psychiatric Nursing Interventions	-	4
ADN 204	Neurological-Sensory Nursing Interventions	-	2
ADN 207	Genital-Urinary Nursing Interventions	2	-
ADN 208	Metabolic-Endocrine Nursing Interventions	2	-
ADN 209	Community Health Nursing	2	-
ADN 210	Cardiovascular Nursing Interventions	-	2
ADN 211	Respiratory Nursing Interventions	-	2
ADN 212	Gastrointestinal Nursing Interventions	-	2
*GS	General Education	6	6
		<u>19</u>	<u>18</u>

Third Semester

ADN 205	Dermatological Nursing Interventions	2
ADN 206	Orthopedic Nursing Interventions	2
ADN 213	Nursing Today and Tomorrow	1
**GS	General Education	3
		<u>8</u>

*Required General Education

GSD - 5 hours (2 areas); GSB 203-4; GSB 202-3

**To be selected by student, dependent on need or interest.

Nursing As A Major

A graduate of this program having passed the Illinois State Board Nursing Examination will be a Registered Nurse and be able to carry out nursing and other therapeutic measures with a high degree of skill using principles from an ever expanding body of science. The licensed registered nurse performs nursing functions with patients who are under the supervisory care of a physician and assists in the planning of the day-to-day care of patients; evaluating the patient's physical and emotional reactions to therapy; taking measures to alleviate distress using treatment modalities with knowledge and precision; and supervising other workers in the technical aspects of care.

A minimum of 65 hours credit is required for the associate degree.

For further information and required course of study, contact:

Alice Hees - Program Supervisor
 Departmental Telephone - 453-3071
 Location - Pulliam 202

RECOMMENDED PROGRAM

SECRETARIAL AND OFFICE SPECIALTIES School of Technical Careers (Associate in Art)

The business world offers many opportunities for secretarial and office personnel with special interest and intense training in specific areas. Both men and women find this a rewarding career field.

Students in this program are not forced into a mold. They may prepare for the position they want in the field that interests them by creating an individualized program of study. They will gain shorthand and typing proficiency and other office skills through a core of basic courses, and may then draw from a variety of allied health, technical, and business programs to specialize.

Court and conference reporting is offered as a specialized associate-degree program. Students combine classroom instruction with actual courtroom experience in the company of an official reporter to qualify to pass the National Shorthand Reporters Association test.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSD 101	English Composition	3	-
GSD 153	Public Communication	-	2
or STC 153b	or Conference Methods		
STC 101a	Business Correspondence	-	2
or BE 316	or Communication in Business		
Scr 101a,b,c,d	Typewriting	5	5
Scr 102a,b,c,d	Gregg Shorthand		
or			
Scr 103a,b,c,d	Machine Shorthand	5	5
Scr 104	Machine Transcription	-	3.5
Acct 110	Accounting	-	3
Scr 106	Reprographics	1	-
Scr 107	Filing	2	-
Scr 109	Calculating Machines	3	-
		<u>19</u>	<u>20.5</u>

Second Year

A recommended program is stated for students in the following specialties: Court and Conference Reporting, Administrative Assistant, Allied Health/Medical Secretary, Government/Legal Secretary, Bi-Lingual International Business and Foreign Service Secretary, Education Secretary, Engineering/Technical Secretary, Insurance/Real Estate Assistant. The student may choose any other specialty, and a special program will be developed for the student.

A minimum of 67 hours credit is required for the associate degree.

Proficiency tests are available for most Secretarial and Office Specialties courses.

For further information, contact:

Robert Kuseh - Program Supervisor
Departmental Telephone - 618-453-3354
Location - Woody Hall, C-310

RECOMMENDED PROGRAM

TOOL AND MANUFACTURING TECHNOLOGY
(NUMERICAL CONTROL)
School of Technical Careers
(Associate in Applied Science)

More and more technicians are needed because of the growing array of automated and numerically controlled machines. The tool and manufacturing curriculum is designed specifically to do just this: prepare the student in specific technical areas that are in great need of trained and skilled people. The tool and manufacturing curriculum furnishes technical information in tool making, metallurgy, statics, strength of material, numerical and electric controls, manufacturing processes, process planning, and machinability of metals.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GSB 101	English Composition	-	3
GSB 202	Introduction to Psychology		
or			
GSB 212	American Government and Politics	-	3-4
STC 105a,b	Technical Mathematics	4	-
TT 101	Basic Tool and Manufacturing Lab	7	-
TT 102	Milling Machine and Grinding Lab	-	7
TT 125	Introduction to Machine Tools	3	-
TT 126	Machinability of Metals, Milling, and Abrasive Machining	-	3
TT 128	Hydraulics and Pneumatic Control	2	-
TT 185	Technical Drawing	4	-
TT 186	Technical Drawing	-	4
		20	11-14
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
EDP 208a	Computer Assisted Numerical Control Programming	4	-
STC 102	Technical Report Writing		
or			
STC 153	Public Communication	-	2
STC 107a,b	Applied Physics	4	-
TT 210	Numerical Control, Electrical Discharge Machining, and Tool and Die	7	-
TT 211	Advanced Numerical Control, Tool and Die, and Production Machining	-	7
TT 220	Numerical Control, Inspection Practice, and Electrical Discharge Machining	3	-
TT 221	Tool and Die, Production, Machining, Process Planning	-	3
TT 275	Metallurgy	2	-
TT 276	Metallurgy	-	2
TT 225	Manufacturing Processes	-	2
		20	16

Tool And Manufacturing Technology As A Major

This program provides knowledge and abilities for industries requiring engineering technicians. Graduates accept jobs as part programmers of numerical control machines, laboratory technicians, planners, methods and quality control technicians, expeditors, tool and die technicians, tool room technicians, and tool room supervisors.

Emphasis is on modern machine tools and accessories, numerical control machines, production set-ups and tooling, jigs and fixtures, dies, and methods for efficient and economical production and manufacture of industrial products and machines.

Also included are courses detailing with the properties and heat treatment of metals, mathematics, technical drawing, technical writing, oral communications, and the human relations aspects of our American industrial life.

The student in this program will have the advantage of courses in data processing that will give him the ability to work with computer-assigned programming for numerical controlled machines.

He will learn to design and test industrial, electrical, hydraulic, and pneumatic power circuits; to read blueprints, design basic jigs and fixtures, make shop sketches, and alter existing machines for structural changes; and to build basic progressive dies, draw dies, die casting dies, and plastic injection mold dies.

The graduate will have the technical background to work with engineers in research, development and testing, plus skills in metal cutting that will give him the abilities of a tool maker.

H. R. Soderstrom - Program Supervisor
Departmental Telephone - 618-985-4140
Location - S.T.C. Campus, Building M-1, Room 102

ENTRY LEVEL JOB TITLES
WHAT DO I DO WITH A DEGREE IN _____?

The Career Planning and Placement Center at SIU-C has compiled a list of titles associated with the first job a graduate may obtain in business, industry or government. We have listed the titles for each four-year degree non-teaching major by academic unit, i.e., College of Business, School of Agriculture, etc.

This list is intended to be used as a stimulus or buzz word for teachers, counselors, faculty members and students who are often faced with the question, "What does one do when they finish college with a bachelor's degree in _____?" We hope this listing assists you in motivating individuals into requesting more information earlier on career opportunities prior to their matriculation to SIU.

Students should be encouraged to utilize the services of the SIU Career Planning and Placement Center as well as those of the specific departments.

SCHOOL OF AGRICULTURE

Agricultural Industries--

Agricultural Commodities Inspector
Agricultural Commodity Warehouse Examiner
Agricultural Economist
Agricultural Management Specialist
Agricultural Marketing Specialist
Agricultural Market Reporter
Agricultural Program Specialist
Agricultural Industry's Representative
Market Research Analyst
Farm Manager
Industrial Relations Specialist
Industrial Hygienist
Industrial Property Management Specialist
Agricultural Manager
Agribusiness Technician
Agricultural Engineer
Soil and Water Conservationist
Agriculture Business Manager
Feed and Steel Sales

Animal Industries

Animal Husbandman
Animal Physiologist
Animal Breeding Expert
Animal Ecologist
Animal Taxonomist
Swine Herdsman
Animal Industry Representative
Animal Hygiene Specialist
Farm Manager
Dairy Cattle Manager
Agricultural Economist
Market Analyst
Product Evaluator
Cost-Benefit Analyst
Animal Control Biologist
Livestock Manager
Animal Nutrition Specialist
Dairy Products Tester
Poultry Manager

Forestry--

Agricultural Aid
Recreational Resource Planner
Forest Engineer
Silviculture Specialist
Forest Utilization Specialist
Forest Recreation Specialist
Range Manager
Watershed Manager
Wildlife Manager
Forest Products Technologist
Animal Ecologist
Plant Ecologist
Pollution Control Specialist
Forest Conservation Specialist
Public and Environmental Health Forester
Parks Supervisor
Grazing Lands Supervisor
Research Forester
Forest Extension Worker
Timber Manager
Park Ranger
Soil Conservationist
Forest Resources Manager

Plant & Soil Science--

Soil Conservationist
Water Conservationist
Soil Erosion Prevention Specialist
Geological Environment Mapping Scientist
Aquifers & Rocks Characteristics Scientist
Plant and Soil Laboratory Technologist
Production Manager
Plant Quarantine Inspector
Plant Pest Control Inspector

Plant & Soil Science (cont.)--

Farm Manager
Entomologist
Foreman, Park Maintenance
Public & Environmental Health Scientist
Plant Ecologist
Plant Breeding Expert
Plant Morphologist
Technical Service Representative
Plant Pathologist
Plant Physiologist
Plant Taxonomist
Soil Bacteriologist

Agriculture Economics--

Customer Service & Production Trainee
Livestock Buyer
Sales and Product Development Trainee
Feed Sales
Agricultural Manager

COLLEGE OF BUSINESS AND ADMINISTRATION

Accounting--

Accountant-I
Accounting & Fiscal Admin. Career Trainee
Revenue Collection Officer-I
Supervisory Auditor
Grants and Contract Officer
Assistant Controller
Plant Accountant
Retail Controller Trainee
Plant Accounting, Internal Auditor
Junior Systems Analyst
Accounting Auditor
Accountant
Financial Management Trainee
Internal Auditor
Accounting Management Trainee
Property Accountant
Budget Accountant
Systems Accountant

Administrative Sciences--

Budget Administrator
Business Operations Analyst
Benefits Analyst
Community Relations Officer
Employee Relations Officer
Employment Interviewing Officer
Labor Relations Officer
Management Analyst
Manpower Planning Officer
Manpower Resources Studies Officer
Organization Planner
Placement Assistant
Public Opinion Polls Officer
Public Relations Officer
Recruiting Officer
Wage-Salary Administrator
Workman's Compensation Officer
Budget Examiner
Claims and Benefits Examiner
Contract Negotiator
Credit Union Examiner
Management Representative
Management Supervisor

Business Economics--

Tax Consultant
Account Executive
Business & Economics Statistician
Business Planning Officer
Economic Analyst
Economic Forecaster
Investment Analyst
New Business Researcher
Organization Planning Officer
Systems Evaluator
Marketing Representative
Operating Plans and Procedures Officer
Operations Research Analyst
Labor Economist
Labor Relations Officer
Workman's Compensation Officer
Benefits Analyst
Industrial Economist
Industrial Labor Relations Specialization Off.
Business Analyst
Loan Administrator
Loan Examiner

Finance--

Internal Auditor
Finance Administrator
Financial Analyst
Trust Administrator
Wage-Salary Administrator
Systems Analyst
Inventory Controller
Credit Analyst
Investment Analyst

Finance (cont.)--

Operations Research Analyst
Budget Administrator
Consumer Researcher
Controller
Credit Manager
Finance Officer
Financial Management Intern
Bursar Assistant (College)
Grant Coordinator (College)
Assistant Fiscal Officer
Assistant to the Paymaster
Payroll and Assignment Supervisor
Assistant to the Director of Finance
Head Cashier
Financial Planning Agent
Loan Administrator

Marketing--

Marketing Assistant
Retail Marketing Representative
Consumer Marketing Area or Territorial Mgr.
Commercial/Industrial Marketing Representative
Sales Representative Trainee
Marketing Trainee
Market Analyst
Management Trainee
Food Service Sales Representative
Bond Representative
Benefits Analyst
Budget Accountant
Budget Administrator
Business & Economics Statistician
Business Planner
Controller
Management Analyst
Manufacturer's Representative
Market Research Analyst
Sales Manager
Product Manager
Operations Research Analyst
Credit Manager
Customer Services Officer
Public Relations Officer

COLLEGE OF COMMUNICATIONS AND FINE ARTS

Art--

Art Apprentice
Studio Assistant
Ceramic Sprayer
Archival Worker
Displays Artist
Exhibit Preparator
Archaeological Digging Officer
Manufacturer's Representative
Purchasing Specialist
Pattern & Mold Maker
Arbore
Arboriculturist (Ornamental Hort.)
Archaeological Assistant
Ceramics Specialist
Activities Director, Rehab.
Painter
Lithographic Artist
Weaving Expert
Museum Curator

Cinema & Photography--

Studio Assistant
Illustrator
Cameramen
Painting & Publication Officer
Visual Information Specialist
Color Technician
Developer
Printer
Retoucher
Sales Manager
Photochecker & Assembler
Chemical Mixer
Advertising Agent
Newsfilm Editor
Film Industry Business Assistant
Film Production Staff
Film Planner
Free Lance Photographer
Documentary Film Specialist
Quality Control Officer
Film Numberer
Film Stripper

Journalism--

Advertising Agent
Advertising Campaigns Planner
Advertising Campaigns Controller
Advertising Campaigns Executive
Media Scheduling Officer
Mass Communication Analyst
Photographer/Reporter
Photo Editor
Writer
Editor
Public Opinion Polls Manager
Publications Staff
Publicity Staff
Sales Agent
Telecommunications Expert
Newspaper Reporter
Newspaper Management Staff
Mass Media Management Staff
Copywriter
Newspaper Columnist
Magazine Production & Design Staff
Cable Communication Specialist
Graphic Communication Specialist
Researcher
Public Affairs Reporter

Music--

Popular Music Specialist
Classical Music Specialist
Dance Band Player
Symphony Orchestra Artist
Rock Group Artist
Jazz Group Artist

Music (cont.)--

Solo Performer
Music Marketing Specialist
Television Artist
Opera Artist
Folk Music Specialist
Composition Writer
Music Conductor
Instrumental Conductor
Instrumental Soloist
Choral Group Artist
Strings Instruments Specialist
Brass Instruments Specialist
Woodwinds Instruments Specialist
Assistant to Music Director
Church Organist
Music Librarian
Music Therapist
Rhythm Instruments Specialist

Radio-Television--

Radio-Television Announcer
Staff Announcer
Scenic Designer
Writer
Broadcast Technician
Assistant to the Producer
Assistant to the Director
Craftsman
Station Manager
Advertising Representative
Program Director
Studio Operator
Continuity Director
Programming Department Staff
Reporter
Sound Effects Technician
Lighting Technician
Traffic Manager
Continuity Writer
Program Assistant
Music Librarian
Educational Television
Newscaster
Floorman

Speech--

Interpreter
Technical Writer
Visitors' Guide
Communications Specialist
Advertising Agent
Editor
Public Information Officer
Public Relations Officer
Publications Staff
Personnel Interviewer
Publicity Staff
Newspaper Reporter
Radio Announcer
Speech Writer
Manufacturer's Representative
Salesperson
Newscaster
Television Announcer

Speech Pathology & Audiology--

Rehabilitation Officer
Community Speech & Hearing Centers Worker
Private Consultant
Psychiatric Aide
Research Center Technician
Therapeutic Technician
Child Behavior Specialist
Child Welfare Specialist
Hearing Aids Specialist
Physical Retardation Specialist
Diagnostic Technician
Treatment Evaluator

COLLEGE OF COMMUNICATIONS AND FINE ARTS (cont.)

Speech Pathology & Audiology (cont.)--

Therapy Programmer
Researcher

Theater--

Illustrator
Recreation Specialist
Costume Designer
Visual Information Specialist
Sound Effect Technician
Theater Drafting Technician
Make-up Specialist
Sales, Magazine
Lighting Effect Technician
Scenery Specialist
Crew Worker in the Television
Crew Worker in the Motion Picture
Costume Specialist
Performing Artist
Folk Dancer
Ballet Dancer
Choreographer (Dance Composer)
Assistant to the Dance Director
Assistant to the Play Director
Theater Management Staff
Educational Television Staff
Children's Program Specialist
Modern Dancer
Understudies Artist

COLLEGE OF HUMAN RESOURCES

Administration of Justice--

Crime Investigator
Patrolman
Juvenile Delinquency Studies Specialist
Alcoholism & Drug Addiction Counselor
Delinquency Preventor
Community Planning & Redevelopment Offcr.
Morale Studies Specialist
Child Care Worker
Penology & Correction Researcher
Probation & Parole Administrator
Rehabilitation & Resettlement Analyst
Social & Behavioral Researcher
Outreach Director
YMCA-YWCA Director & Program Specialist
Prisoner Classification Interviewer
Public Aide, Caseworker

Black American Studies--

Developmental Skills Counselor
Placement Specialist, 2-yr. College
Instructor, College
Marketing Specialist
Editor & Writer
Black Studies Coordinator, College
Claims Authorizer
Probation & Parole Officer
Student Ctr. Activities Director, College
Administrative Assistant
Political Systems Researcher
Legislative Aide
Manpower Planning Officer
Model Cities Program Director
Community Planner
Personnel Specialist
Recreation Director
Officer, Dept. of Corrections
Counselor, Dept. of Vocational Rehab.
Ethnologist
Production Planner
Retailing Supervisor
Administrative Officer, Financial

Child and Family--

Nursery School Director
Day Care Center Director
Child Care Specialist
Home Economics Extension Specialist
Recreational Leader
Residential Life Supervisor
Preschool Director
Child Behavior Studies Specialist
Child Welfare Studies Specialist
Child Placement Studies Specialist
Family Welfare Studies Specialist
Cultural Studies Specialist
Sales Trainee
Children's Programs Organizer
Child Development Specialist
Minority Groups & Race Relations
Studies Specialist
Population Studies Specialist
Teacher, Pre-School

Clothing and Textiles--

Family Expenditures Studies Specialist
Consumer Market Analyst
Consumer Relations Officer
Apparel Designer
Fashion Coordinator
Patterns Designer
Tailor
Clothing Economist
Fashion Merchandising Expert
Advertising Assistant
Retail Store Manager
Cost Analyst
Customer Services Specialist

Clothing and Textiles (cont.)--

Sales Agent
Purchasing Manager
Marketing Specialist
Textile Selector
Textile Laboratory Assistant
Customer Relations Specialist
Pattern Maker
Industrial Relations Specialist
Price Economist
Manufacturer's Representative

Design--

Story Illustrator
Advertising Layouts Specialist
Billboard Designer
Displays Organizer
Greeting Cards Designer
Annual Report Designer
Television Commercials Specialist
Title Cards and Set Designer
Fashion Illustrator
Architectural Assistant
Airbrush & Photo Retouching Artist
Graphic Processes Specialist
Graphic Designer
Advertising Illustrator
Copywriter
Fashion Designer
Community Planner
Typographic Designer
Cameraman
Technical Illustrator
Systems Evaluator
Technical Sales Representative
Publications Assistant
Manufacturer's Representative

Family Economics & Management--

Consumer Market Analyst
Consumer Services Officer
Consumer Relations Officer
Consumer Research Analyst
Market Research Analyst
Gov't Regulatory Agency Worker
Patient Service Rept., Hospital
Private Social Welfare Agency Worker
Public Social Welfare Agency Worker
Senior Citizens Agency Worker
Credit Counseling Agency Worker
Trade Association Officer
Credit & Financing Agency Worker
Activity Therapy Trainee
Household Equipment Specialist
Household Activity Analyst
Household Finance Specialist
Purchasing Officer
Manufacturer's Representative

Food and Nutrition--

Food Technologist
Food and Drug Inspector
Food Buyer
Food Industry Technician
Food Products Salesman
Food Processing Technician
Food Service Supervisor
Quality Control Technician
Agricultural Commodities Inspector
Consumer Safety Inspector
Dietician
Research for Consulting Firm
Food & Beverage Control Officer
Hospital Dietitian
College Dormitories Dietitian
Industrial Plants Dietitian
Health Clinic Dietitian
Laboratory Dietitian

COLLEGE OF HUMAN RESOURCES (cont.)

Food and Nutrition (cont.)--

Public Health & Welfare Org. Dietitian
Food Systems Manager
Home Service Representative for Utility Co.
Household Equipment & Foods Officer
Manufacturer's Demonstrator
Manufacturer's Representative

Interior Design--

Interior Designer
Assistant to the Architect
Customer Services Specialist
Design Reviewer
Manufacturer's Representative
Price Analyst
Researcher
Customer Relations Officer
Architectural Interior Designer
Exhibition Designer
Home Furnishing Consultant
Office Landscape Design
Public Building Interior Designer
Commercial Interior Designer
Residential Interior Designer
Decorations Selector
Space Planner
Purchasing Specialist
Theater Designer
Supervisor, Retail Merchandising

Social Welfare--

Social Worker
Social Welfare Aide
Rehabilitation Counselor
Casework Assistant
Neighborhood Worker
Residential Welfare Facilitator
School Counselor
Employment Aide
Cooperative Extension Service Worker
Recreation Worker
Alcoholism & Drug Addiction Researcher
Child Placement Agent
Child Welfare Programmer
Civic Reform Specialist
Community Planning & Redevelopment Expert
Home Economist
Cultural Studies Worker
Probation and Parole

COLLEGE OF LIBERAL ARTS

Anthropology--

Human Biology & Physical Characteristics
Researcher
Operations Research Analyst
Population Studies Anthropologist
Archival Worker
Archaeological Digging Anthropologist
Exhibit Preparation Expert
Museum Curator
Human Engineer
Ethnohistorian
Ethnolinguistician
Rehabilitation & Resettlement Personnel
Systems Evaluator
Safety Personnel
Statistician
Sales Representative
Work Environment Officer
Anthropogeographical Researcher
Ethnologist

Computer Science--

Programmer (Computer Programmer)
Systems Analyst
Equipment Analyst
Computer Specialist
Process-Control Computers Scientist
Computer Simulation Technician
Dealer Data Processing Personnel
Legislative Retrieval Specialist
Computer-Controlled Machinery Operator
Plant Protection Scientist
Safety Devices Operator
Security Devices Operator
Sales Representative
Computer Research Scientist
Consultant

Economics--

Market Research Analyst
Econometrician
Economic Analyst
Economic Forecaster
Finance Administrator
Budget Analyst
Gov't Economic Enterprises Studies Officer
International Banking Officer
International Trade Economist
Investment Analyst
Loan Administrator
Industrial Economist
Manufacturer's Representative
Production Supervision
Price Economist
Transportation Economist
Labor Economist
Business Planner
Economic Geographist
Legislative Aide
Population Economic Analyst
Right-of-Way Agent
Tax Economist
Urban Economist

Foreign Languages & Literature--

Translator
Simultaneous Interpreter
Consecutive Interpreter
Visitors' Guide
Communications Specialist
Public Information Officer
Escort Interpreter
Conference Interpreter
International Relations Officer
Sales Representative
Writer
Editor
Publications Staff

Foreign Languages and Literature (cont.)--

Speech Writer
Archaeological Worker
Archival Worker
Museum Curator
Cultural Studies Specialist
Researcher
Exhibit Preparator

Languages--(English, French, German, (Spanish, & Russian)

Airline Stewardess
Customer Services Personnel
Public Relations Officer
Publications Personnel
Executive Secretary
Announcer
Continuity Writer
Copywriter
Correspondent
Critical Writer
Editorial Writer
Feature Writer
Program Assistant
Reporter
Assistant Librarian
Rewriter
Technical Writer
Educational Television Staff
Manufacturer's Representative
Sales Agent
Recreation Specialist
Interpreter

Geography--

Geographer
Researcher
Economic Geographer
Political Geographer
Urban Geographer
Physical Geographer
Regional Geographer
Cartographer
Map Cataloger
Regional Analyst
Photo-Intelligence Specialist
Climatological Analyst
Community Planner
Editor
Air Traffic Controller
Map Librarian
Cultural Geographer
Location Analyst
Weather and Climate Analyst
Sales Representative
Resource Management Personnel
Planner
Construction Geographer
Highway Planner
Conservation Specialist

History--

Administrative Assistant in Library
Administrative Assistant in Museum
Museum Curator
Archival Worker
Exhibit Preparation Historian
Genealogical Background Researcher
Legal Assistant
Administrative Aide, College
Sales Representative
Biography Writer
Political Systems Researcher
Religion & Philosophy Studies Historian
Sociological Researcher
American Government Studies Historian
Censoring (Officer) Historian
Volunteer, Peace Corps

COLLEGE OF LIBERAL ARTS (cont.)

History (cont.)--

Legislative Budget Analyst
International Law & Relations Researcher
Legislative Aide
Public Information Historian
Claims Authorizer
Director, Community Historical Society
Editor

Inter-American Studies--

Translator
Interpreter
Visitors' Guide
Communication Officer
International Students Coordinator
Public Information Officer
International Relations Officer
Writer
Border Patrol
Publications Staff
Archival Worker
Community Planning & Redevelopment Officer
Legislative Aide
International Trade Economist
International Banking Specialist
Stock Broker
Job Analyst
Loan Administrator
Market Research Analyst
Inspector, Immigration & Naturalization Dept.
Museum Curator
Community Relations Officer
Manufacturer's Representative

Mathematics--

Junior Systems Analyst
Actuary (or Actuarial Assistant)
Cryptographer
Mathematician
Operations Research Analyst
Statistician
Biometrician
Demographer
Contract Administrator
Inventory Controller
Investment Analyst
Wage-Salary Administrator
Computing Analyst
Cyberneticist
Information Scientist
Accounting Trainee
Research Mathematician
Mathematical Programmer
Methods Analyst
Technical Sales Representative
Market Analyst

Philosophy--

Researcher
Minister
Technical Writer
Community Relations
Employee Relations
Grievances Specialist
Public Relations
Publications Officer
Alcoholism & Drug Addiction Researcher
Archival Worker
Museum Curator
Public Information Specialist
Mediator
Civic Reform Studies Specialist
Sales Trainee
Delinquency Prevention Specialist
Group Interaction Studies Specialist
Morale Studies Specialist
Venereal Disease Investigator
Motivational Researcher
Librarian

Political Science--

American Government Studies Officer
Sales Agent
Censoring Officer
Community Relations Officer
Comparative Gov't Studies Officer
Constitutional Legal Aide
Probation and Parole Office
Customs Port Investigator
Foreign Aide Studies Officer
Gov't Policy Position Analyst
Labor Relations Officer
Manpower Planning Officer
Manpower Resources Studies Officer
FBI Agent
Operations Research Analyst
Legislative Aide
Political Systems Researcher
Political Theory & Philosophy Studies
Officer
Budget Analyst
Public Opinion Polls Officer
Public Relations Officer
Claims Authorizer
Systems Evaluator
Import Analyst

Psychology--

Alcoholism & Drug Addiction Researcher
Child Behavior Studies Psychologist
Child Placement Studies Psychologist
Child Care Worker
Group Interaction Studies Technician
Group Supervisor or Facilitator
Sales Agent
Mental Deficiency Studies Psychologist
Morale Studies Psychologist, Assistant
Director, Senior Citizens Center
Investigator, Urban Development
Prisoner Classification Interviewer
Probation & Parole Incharge
Public Information Personnel
Public Opinion Polls Officer
Public Relations Personnel
Rehabilitation & Resettlement Personnel
Claims Authorizer
Social Insurance Researcher
Production Supervision
Drug Abuse Counselor
Population Studies Psychologist
Mental Health Clinic Technician

Sociology--

Area Studies Specialist
Child Behavior Studies Specialist
Child Placement Studies Specialist
Child Welfare Studies Specialist
Civic Reform Studies Specialist
Community Planning & Redevelopment
Personnel
Community Relations Personnel
Venereal Disease Investigator
Sales Trainee
Family Welfare Studies
Legal Assistance Officer
Group Interaction Studies
Group Supervisor in Mental Health
Action Volunteer
Minority Groups & Race Relations Studies
Patrolman
Counselor, Institution or Prison
Management Trainee (Corporations)
Public Opinion Polls
Probation Parole Officer
Administrative Aide, Gov't
Child Care Worker
Claims Authorizer
Social Stratification Analyst

SCHOOL OF ENGINEERING AND TECHNOLOGY

Engineering--

Plant Engineer
Product Development & Design Engineer
Product Application and Test Engineer
Sales Engineer
Operations Research Analyst
Cartographer
Forest Products Technologist
Systems Engineer
Hydrologist
Industrial Specialist
Meteorologist
Sales Representative
Patent Engineer
Quality Assurance Specialist
Thermal and Environmental Engineer
Electronics Engineer
Electric Circuits Specialist
Communications Engineer
Electromagnetic Specialist
Radio and Television Engineer
Petroleum Engineer
Hydraulic Engineer
Engineering Mechanics & Materials
Specialist

Engineering Technology--

Plant Engineer
Product Development & Design Engineer
Product Application and Test Engineer
Sales Engineer
Mechanical Engineer
Civil Engineer
Electrical Engineer
Systems Coordinator
Systems Installation Specialist
Systems Testing Specialist
Systems Evaluator
Hydromechanics Engineer
Sanitary Engineer
Highway Construction Engineer
Aeronautical Engineer
Aerospace Engineer
Engineering Technician
Structural Engineer
Hydraulic Engineer
Transportation Engineer
Soil Mechanics Specialist
Electronics Engineer
Electrical Equipment Mfg. Engineer
Communications Engineer
Power Engineer

Industrial Technology--

Industrial Engineer
Manufacturing Management Trainee
Management Control Systems Designer
(Developer)
Production Planning and Control Systems
Designer
Physical Distribution of Goods & Services
Systems Designer
Plant Location Surveys Engineer
Wage and Salary Administrator
Job Evaluator
Quality Assurance Specialist
Supply Management Specialist
Industrial Systems Analyst
Industrial Designer
Industrial Packaging Specialist
Plastics Technologist
Industrial Metrologist
Metallurgical Engineer
Heat Treaters
Process Design and Control Engineer
Safety Engineer
Internal Security Engineer
Numerical Control Engineer

Industrial Technology (cont.)--

Materials Handling & Plant Layout Engineer
Maintenance Engineer
Physical Plant Engineer
Manufacturer's Representative

COLLEGE OF SCIENCE

Biological Sciences--

Venereal Disease Investigator
Biochemist
Aide, Veterinary Clinic
Pharmaceutical Sales
Fishery Bacteriologist
Quality Control Specialist
Embryologist
Genetics Scientist
Medical Laboratory Assistant
Medical Bacteriologist
Researcher, Chiropractic College
Nutrition Specialist
Plant Protection Scientist
Technical Marketing Representative
Research Technician
Technical Library Operator
Biological Warfare Officer
Technical Sales
Soil Conservation Technician
Soil Bacteriologist
Commodities Inspector
Food and Drug Inspector

Botany--

Agricultural Sales
Biological Product Development Scientist
Botanist
Ecologist
Economic Botanist
Horticulture Technician
Plant Breeding Technician
Plant Ecologist
Plant Morphologist
Plant Nematologist
Plant Pathologist
Plant Physiologist
Plant Taxonomist
Soil Bacteriologist
Plant Protection Technician
Quality Control Specialist
Parasitologist
Technical Library Operator
Museum Curator
Biotechnologist
Industrial Bacteriologist
Research, Glacier Nat. Park
Embryologist
Biological Warfare Scientist
Agricultural Commodities Inspector

Chemistry--

Research, Pharmaceutical
Biochemist
Biochemical Technologist
Research Chemist
Blood Chemistry Technician
Quality Control Chemist
Analytical Chemist
Organic Chemist
Inorganic Chemist
Physical Chemist
Food Chemist
Soil Chemist
Agricultural Chemist
Paint Chemist
Chemical Laboratory Technologist
Dye Chemist
Geochemist
Glass Chemist
Industrial Alcohols Chemist
Leather Chemist
Manufacturer's Representative
Nuclear Chemist
Product Studies and Testing Chemist
Textile Chemist
Water Purification Chemist

Engineering Biophysics--

Biomedical Appliances Operator
Manufacturer's Representative
Researcher
Biomedical Engineer
Clinical Engineer
Medical Biophysicist
Medical Engineer
Sales Representative
Biophysicist
Physical Systems Designer
Environmental Scientist
Instrumentation Specialist
Product Manager
Operations Research Analyst
Synthetic Drugs Technician
Synthetic Products Technician
Instrument Manufacturers Staff
Aerospace Medicine Technologist

Geology--

Geologist
Astrogeologist
Cartographer
Conservation Scientist
Economic Geologist
Geochemist
Geological Engineer
Geological Oceanographer
Geological Researcher
Geophysical Exploration Scientist
Geophysicist
Groundwater Geologist
Hydrologist
Manufacturer's Representative
Mineralogist
Mining Geologist
Petroleum Geologist
Photogeologist
Resource Evaluator
Sedimentologist
Stratigraphist
Surveying Geologist
Geomorphologist
Structural Geologist
Product Studies and Testing Geologist

Microbiology--

Microbiologist
Medical Bacteriologist
Soil Microbiologist
Food Bacteriologist
Medical Laboratory Assistant
Technical Maintenance Personnel
Microbiostatistician
Embryologist
Genetics Research Technician
Serologist
Histologist
Cytologist
Parasitologist
Virologist
Microbiology Researcher
Wine Chemist
Fishery Bacteriologist
Quality Control Specialist
Entomologist
Biological Photography Staff
Manufacturer's Representative

Physics--

Physicist
Acoustics Physicist
Design Physicist
Electricity and Magnetism Physicist
Electronics Physicist
Light Physicist

COLLEGE OF SCIENCE (cont.)

Physics (cont.)--

Quality Control Physicist
Research Physicist
Aerodynamics Scientist
Applied Physics Researcher
Astrophysicist
Atomic and Molecular Physicist
Biophysicist
Geophysicist
Factory Insurance Representative
Thermodynamics Physicist
Optics Physicist
Manufacturer's Representative
Mechanics Physicist
Nuclear Physicist
Plasma Physicist
Product Studies and Testing Physicist
Solid-State Physicist
Physical Metallurgy Scientist

Physiology--

Physiologist
Pharmacologist
Entomologist
Ecologist
Biological Photography Staff
Biostatistician
Biological Warfare Personnel
Aquatic Biologist
Bioastronautician
Astrobiologist
Physiological Researcher
Genetics Researcher
Manufacturer's Representative
Pathologist
Medical Bacteriologist
Food Bacteriologist
Fishery Bacteriologist
Physical Anthropologist
Technical Writer
Plant Physiologist
Virologist

Zoology--

Zoologist
Animal Breeding Technician
Animal Ecologist
Animal Husbandry Supervisor
Animal Taxonomist
Biological Warfare Technician
Fishery Bacteriologist
Food Bacteriologist
Genetics Technician
Medical Laboratory Assistant
Quality Control Laboratory Technician
Soil Bacteriologist
Technical Library Operator
Entomologist
Physiologist
Wildlife Lab Assistant
Wildlife Refuge Manager
Parasitologist
Medical Bacteriologist
Zoological Park Keeper
Mammalogist
Research Technician

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PUBLICATIONS FOR COUNSELORS

Counselor's Advisement Catalog

Every counselor and academic advisor should have a personal copy. Write School/College Relations Division, Office of Admissions and Records.

Southern Illinois University Bulletin

Undergraduate Catalog (copies distributed free to educational institutions and counselors--use school stationery). Graduate Catalog, Schedule of Classes (specify semester). Write University Graphics.

Articulation News

Published in the fall and late winter, this newsletter provides valuable information on important changes and activities of interest to a counselor. To be placed on the mailing list, write to School/College Relations, Office of Admissions and Records.

School/College News

Published as needed to immediately inform counselors, student personnel services, staff, etc., of items of interest, status of programs, changes in academic or unit requirements.

PUBLICATIONS FOR STUDENTS

General Information Catalog

This small pictorial and factual booklet contains information and guidelines for the prospective student. It is distributed in application packets, at college days, night programs, and in correspondence. Quantities will be sent on request. Write University Graphics or School/College Relations Division, Office of Admissions and Records.

Acceleration and Enrichment Opportunities

This brochure describes special academic programs, options, etc., for the capable student. Quantities will be sent on request. Write School/College Relations Division, Office of Admissions and Records.

OTHER MATERIALS AND OFFICES

Admission Applications--Office of Admissions and Records

Testing Information (ACT)--Testing Center, Washington Square, Building C

Financial Assistance Applications--Student Work and Financial Assistance Office

University Housing Information--Housing Business Services, Washington Square, Building D

Off-Campus (Private) Housing Information--Housing Information Center, Washington Square, Building C





Southern Illinois University Bulletin

1977-1978 School of Law Catalog

Southern Illinois University
at Carbondale



Southern Illinois University at Carbondale is in compliance with Title IX of the Education Amendments of 1972. In part, Title IX mandates that no person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. Inquiries concerning the application of Title IX regulations may be directed to Dr. Mary Helen Gasser or Mr. Richard Hayes, University Affirmative Action Office, Anthony Hall, Room 104, telephone 536-6618.



**Southern
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**1977-1978
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**Southern Illinois University
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This Issue

This issue of the Southern Illinois University Bulletin covers in detail questions concerning the School of Law program of Southern Illinois University at Carbondale. (It supersedes Vol. 18, No. 5.) The University reserves the right to change information contained herein on matters other than curricular requirements without notice when circumstances warrant such action, and apply the change to all students without regard as to their date of entry into college.

Other issues of the Southern Illinois University Bulletin, which may be obtained free from University Graphics, Southern Illinois University, Carbondale, Illinois 62901, are listed below.

Graduate Catalog

Undergraduate Catalog

Schedule of Classes (fall, spring, or summer)

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Board of Trustees and Officers of Administration

Board of Trustees of Southern Illinois University	<i>Term Expires</i>
HARRIS ROWE, <i>Chairman</i> , Jacksonville	1983
IVAN A. ELLIOTT, JR., <i>Vice-Chairman</i> , Carmi	1979
MARGARET BLACKSHERE, <i>Secretary</i> , Madison	1979
ELIZABETH BYRNES, Carbondale	1978
JAMES M. GRANDONE, Edwardsville	1978
WAYNE HEBERER, Belleville	1981
CAROL KIMMEL, Rock Island	1983
WILLIAM R. NORWOOD, Elk Grove Village	1983
A. D. VAN METER, JR., Springfield	1981
JAMES M. BROWN, <i>General Secretary of the Southern Illinois University System</i>	

Officers of Administration, Southern Illinois University at Carbondale

WARREN W. BRANDT, *President*
FRANK E. HORTON, *Vice President for Academic Affairs and Research*
HIRAM H. LESAR, *Dean*, School of Law
DAVID C. JOHNSON, *Associate Dean*, School of Law

School of Law Calendar

Summer Session, 1977

Classes Begin
Independence Day Holiday
Classes End
Final Examinations

Commencement

Monday, June 13
Monday, July 4
Tuesday, August 2
Wednesday, August 3–Friday,
August 5 (inclusive)
Saturday, August 6

Fall Semester, 1977

Orientation

Classes Begin
Labor Day Holiday
Thanksgiving Vacation

Classes End
Final Examinations

Friday, August 19–Sunday, August 21
(inclusive)
Monday, August 22
Monday, September 5
Saturday, November 19–Sunday,
November 27 (inclusive)
Tuesday, December 6
Wednesday, December 7–Saturday,
December 17 (inclusive)

Spring Semester, 1978

Classes Begin
Washington's Birthday Holiday
Spring Vacation

Classes End
Final Examinations

Commencement

Wednesday, January 11
Monday, February 20
Saturday, March 18–Sunday, March
26 (inclusive)
Friday, April 28
Monday, May 1–Friday, May 12
(inclusive)
Saturday, May 13



University General Information

History

Chartered in 1869 with instruction initiated in 1874, Southern Illinois University at Carbondale has entered its second hundred years in operation. Established in 1869 as Southern Illinois Normal University, the school acquired the name, Southern Illinois University, in 1947 by legislative action. At the outset of the 1970's Southern Illinois University became a single state system with two universities: Southern Illinois University at Carbondale and Southern Illinois University at Edwardsville. Southern Illinois University at Carbondale also has a medical school campus at Springfield. The institution first operated as a two-year normal school but in 1907 became a four-year, degree-granting institution although continuing its two year course into the 1930's. It was in 1943 that the school was transformed from a teacher-training institution into a university, thus giving official recognition to the area's demand for diversified training and service. Graduate work was instituted in 1943, with the first Ph.D. degrees granted in 1955. There has been diversification of programs at the undergraduate level with the establishment of the Colleges of Communications and Fine Arts, Education, Business and Administration, Human Resources, Liberal Arts, and Science and the Schools of Agriculture, Engineering and Technology, Technical Careers, and programs in University Studies. In addition to expansion of programs within the Graduate School, professional schools have been established in medicine and law.

In keeping with the state's master plan, the University's objective is to provide a comprehensive educational program meeting as many individual student needs as possible. While providing excellent instruction in a broad range of traditional programs, it also helps individual students design special programs when their interests are directed toward more individualized curricula. The University comprises a faculty and the facilities to offer general and professional training ranging from two-year associate degrees to doctoral programs, as well as certificate and non-degree programs meeting the needs of persons not interested in degree education.

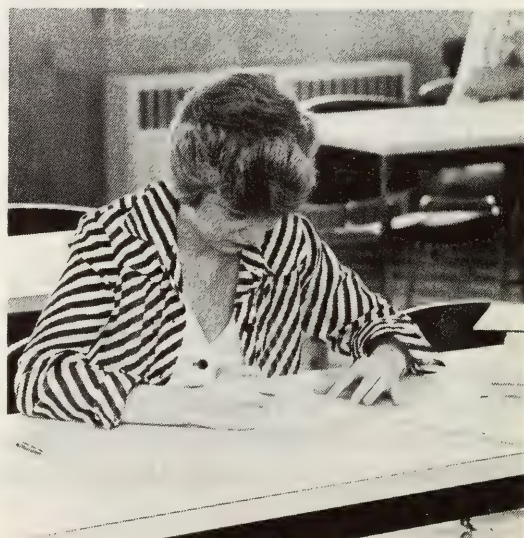
Location

The city of Carbondale is approximately 100 miles southeast of Saint Louis, Missouri, in Jackson County, the western border of which is the Mississippi River. Some of the most rugged and picturesque terrain in Illinois lies south of Carbondale. Sixty miles to the south is the historic confluence of the Ohio and Mississippi rivers; the two rivers forming the border of the southern tip

of Little Egypt, the name given to the fourteen southernmost counties in Illinois. The region immediately surrounding Carbondale is noted for its large peach and apple orchards. Two state parks and four lakes are located within ten miles of the campus and much of the area is a part of the Shawnee National Forest.

Campus

The University campus, comprising more than 3,290 acres immediately south of the city of Carbondale, includes a 981 acre developed portion with woods and a lake as a site for academic buildings and residence halls. The buildings are located in wooded tracts along two circular shaped campus drives, named for Lincoln and Douglas. Two beautiful features, located near the center of the campus, are a wooded tract preserved in the tradition of native forests of Southern Illinois and several buildings which formed the original campus a century ago. Approximately seventy-five permanent buildings and several hundred temporary buildings are located on the campus.



1 School of Law

In May, 1971, the Illinois Board of Higher Education published Phase III of its study, A Master Plan for Higher Education in Illinois. It was therein stated that a new law school "should be opened at Southern Illinois University in Carbondale as soon as appropriate planning, approval, and funding can be achieved." The University, which has main campuses at Carbondale and Edwardsville and which was aware of the need for more good law schools and particularly for a school in its region, immediately took steps to make the school a reality. An appropriation for this purpose was secured from the Illinois legislature in June, 1972, and shortly thereafter Hiram H. Lesar, then dean of the School of Law at Washington University, was employed as the first dean of the new school. The nucleus of an able faculty, experienced in practice and teaching, was recruited, and a first-year class was accepted to begin study in September, 1973.

Purposes

The main purpose of the School of Law is to train lawyers who will be competent to practice law now and in the future. In addition to specific legal rules, the student must learn analytic skills, research techniques, and the basic legal principles and policies underlying the current applications of those rules. He or she should also learn the basic skills of advocacy, counseling, and negotiation.

Although its graduates will be prepared to practice in any jurisdiction, it is anticipated that the School of Law by reason of its location will help to provide lawyers to fill the unmet need for legal services in Southern Illinois.

The second purpose of the School of Law stems from recognition of the social fact that lawyers are expected to provide a large part of the leadership in a wide spectrum of American life. In general terms this means that lawyers must perform two functions which go beyond rendering competent legal service. They must be prepared to serve in a "watch-dog" capacity with respect to the proper functioning of American institutions, and they must be prepared to participate in "making law." Of course, the lawyer-legislator "makes" law but so does the member of the important bar association committee charged with responsibility for drafting proposed legislation.

The second purpose of the school, then, is to assure that the leadership function performed by lawyers is carried out well. For this purpose the lawyer requires not only the whole range of skills and knowledge needed for the practice of law, but also an understanding of our institutions and a sensitivity to potential conflict areas. Two things are essential to carrying

out objectives of such breadth: a curriculum which balances the course offerings as carefully as possible so that neither purpose is sacrificed to the other, and a faculty with unusual breadth of knowledge and vision to formulate that curriculum and with an extraordinary ability to implement it, both within and without the classroom.

The third purpose of the school—which is essential to the fulfillment of the other two—is to instill in its students a proper conception of the professional responsibilities of the lawyer and the organized bar, an understanding of the nature and role of the legal profession, and knowledge and appreciation of the ethical principles by which all lawyers are bound.

It is the school's position that this kind of training can best be accomplished with a student body numbering from 350 to 450—small enough so that faculty and students may know one another and large enough to justify a faculty of sufficient size to offer all the courses that should be given in a modern law school. As soon as a new building can be provided, the school will be expanded to this size. In the meantime, an entering class of 90 will be accepted each year, and the faculty will consist of 18 full-time members to accommodate a total enrollment of about 240.

Facilities

The school occupies two, and part of another two, adjoining buildings in the Small Group Housing Complex near the lake on the main campus. These buildings, which formerly housed fraternities, have been remodeled. One



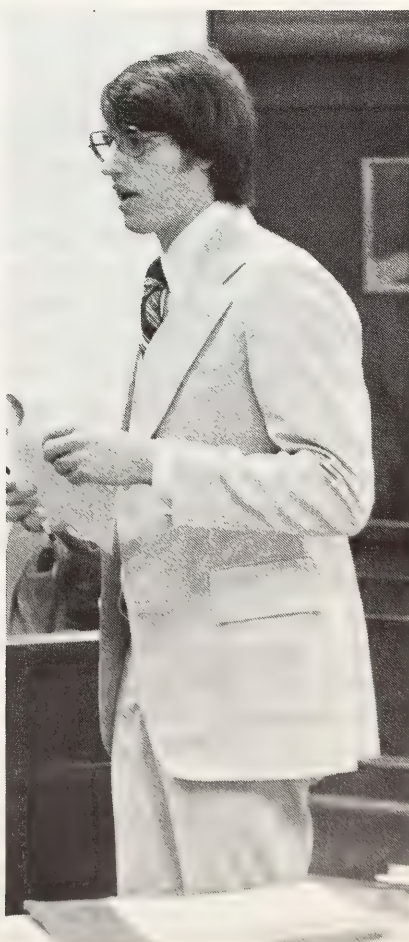
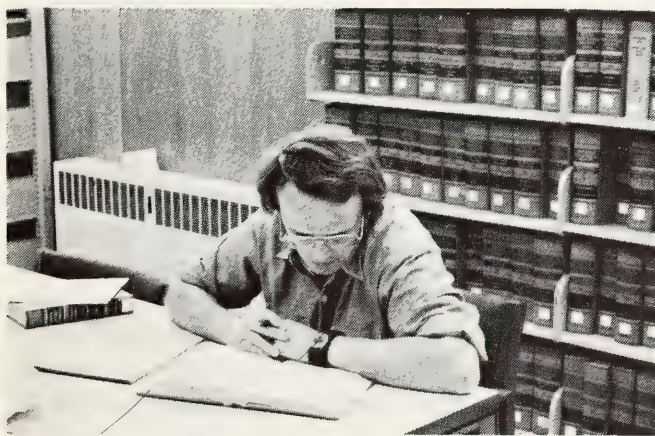
houses the law library, the second is the classroom-office building, a third has additional library facilities, a court-classroom, and faculty offices, and a fourth provides book storage capacity.

Library

The law library, beginning with a nucleus of 35,000 volumes transferred to it by the university library, has grown to over 72,000 bound volumes with an additional 43,000 volume equivalent in microform. Included in the library is an almost complete collection of primary legal sources both state and federal. Moreover, a strong retrospective and current legal periodical collection has been developed. The monographic and treatise holdings in law and law-related fields are representative of the best currently available, and major efforts are underway to substantially increase the library's resources in these areas. Subscriptions to looseleaf and other current awareness services supporting all major curricular and research programs have been established. Additionally, the services and collection of the 1,600,000 volume university library are readily available to all law students. With these resources, and a professional and technical support staff numbering thirteen members, the library is well prepared to meet the needs of modern legal education.

Accreditation

The SIU School of Law has been provisionally approved by the American Bar Association.



"A law school will be granted provisional approval when it establishes that it substantially complies with the Standards for Approval of Law Schools by the American Bar Association and gives assurance that it will be in full compliance with the standards within three years after receiving provisional approval.

"A law school will be granted full approval when it establishes that it is in full compliance with the standards and it has been provisionally approved for at least two years.

"A provisionally approved school will be reinspected each year during the period of provisional approval and will be granted full approval when the Council of the Section of Legal Education and Admissions to the Bar and the House of Delegates of the American Bar Association determine that the school complies with all of the requirements of the Standards for Approval of Law Schools by the American Bar Association as they relate to full approval.

"A provisionally approved school will be considered for full approval by the House of Delegates when the council finds, after inspection, that the school meets the standards established by the American Bar Association as interpreted by the council on a basis that assures continued compliance with the letter and the spirit of the standards, with particular emphasis on a steady improvement in the quality of the educational program.

"The students at provisionally approved law schools and persons who graduate while a school is provisionally approved are entitled to the same recognition accorded to students and graduates of fully approved law schools." (Council of the Section of Legal Education and Admissions to the Bar of the American Bar Association.)

Curriculum

The first-year curriculum includes basic courses and is required. It differs from the first-year curriculum in many, if not most, schools in that first-year legal writing is taught in small sections of 10 to 20 students each by regular full-time faculty members, and in the inclusion of a course in commercial law the second semester to familiarize students with statutory law. Second- and third-year elective courses are offered in all major fields of law.

The combined total of course work permitted in each of the areas of clinical law, moot court board, and law review may not exceed 6 semester hours.

In addition to the first-year courses, every student will be required to take at least one seminar which requires the production of a paper of the quality of a law review comment. Law review students are not required to take a seminar but may do so if they wish. A seminar generally will be an "in depth" study of one or more aspects of the regular courses or a combination of such courses.

Up to 6 semester hours of credit for course work taken in the Graduate School may be applied, with permission of the deans of both the Graduate School and the School of Law, toward the number of hours required for the J.D. degree and toward the residence semester requirement. A student must earn a grade of *B* or better in such work for School of Law credit to be given, but this letter grade will not be reflected on a student's School of Law record, nor will it be used to compute the law grade-point average.

FIRST-YEAR COURSES

First Semester

Course	Semester Hours
Contracts	4
Legal Process	3
Torts	4
Property IA	3
Legal Writing	1
Legal Bibliography	1
Total	16

Second Semester

Commercial Law I	3
Constitutional Law	3
Procedure I	3
Property IB	3
Criminal Law	3
Moot Court I	1
Total	16

SECOND- AND THIRD-YEAR COURSES

Administrative Law	3
Admiralty Law	2
Agricultural Law	2
Antitrust	3
Advanced Moot Court	1-4
Business Associations I*	3
Business Associations II*	3
Commercial Law II*	3
Comparative Law**	3
Conflict of Laws	3
Constitutional Law II*	3
Corrections	3
Creditors' Rights	3
Criminal Justice Administration I	3
Criminal Justice Administration II	3
Deceptive Trade Practices ...	2
Drafting Legal Instruments***	3
Environmental Law	3
Estate and Gift Taxation	3
Estate Planning	3
Evidence****	3
Family Law	3
Federal Courts	3
Federal Income Taxation* ...	3
Federal Income Taxation of Business Enterprises	3
Future Interests	3

Course	Semester Hours
Graduate Courses	up to 6
Higher Education Law	2
Insurance**	2
International Law	3
Juvenile Courts****	2
Labor Law I	2
Labor Law II	2
Legal Clinic***	0-6
Legal History	2
Legal Research and Writing ..	1-6
Legislation	3
Mental Health Law	3
Natural Resources Law	3
Problems in First Amendment Litigation	2
Procedure II*	3
Real Estate Finance and Development	4
Remedies	3
Securities Regulation	3
State and Local Taxation****	3
The Competitive Process	4
The Legal Profession	2
Transnational Business Transactions	3
Trial Advocacy	3
Trusts and Estates I*	3
Trusts and Estates II*	2
Water Law	2

SEMINARS

Civil and Political Rights	3
Community Mental Health Law	3
Consumer Protection	3
Constitutional Litigation	3
Current Problems in Torts	3
Natural Resources and Environmental Law	3
Products Liability	2
Selected Problems in Criminal Procedure	3
State and Local Government ..	3
Tax Policy****	3
Theories of Constitutional Adjudication	3
Transnational Business Transactions	3

* Normally elected in the second year
** May not be offered in 1977-78
*** Offered in summer session, 1977
**** Offered only in summer session

Admission

To be admitted as a candidate for the Juris Doctor degree, an applicant must have received a bachelor's degree or the equivalent and must have demonstrated capacity for the study of law by a satisfactory undergraduate record and satisfactory performance on the Law School Admission Test (LSAT). Forms for applying for admission may be obtained from the School of Law, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

The LSAT is administered on a nationwide basis by the Educational Testing Service, Box 944, Princeton, New Jersey 08540. The test administration dates in July, October, and December of the applicant's final year of undergraduate study are preferred.

Applicants must also register with the Law School Data Assembly Service (LSDAS) by completing the form found in the LSAT bulletin of information and returning it to the Educational Testing Service. Applicants must have transcripts sent to LSDAS by the registrar of each college and professional or graduate school attended. The applicant's test score and evaluation of transcripts are reported to him and to the law schools he designates. The applicant should indicate on the LSAT/LSDAS forms that his score and evaluation are to be reported to the Southern Illinois University at Carbon-



dale School of Law. It is not necessary that application for admission to the School of Law be made before taking the test or registering with LSDAS.

Applications for admission to the school may be filed any time after September 1, but preference will be given to applicants who file their applications prior to January 1. There is a \$10.00 application fee. This application fee will be waived in all cases in which the applicant has received a waiver of the LSDAS fee. The method for obtaining that waiver may be found in the LSAT bulletin.

An applicant who is admitted is required to make a security deposit of \$100 at the time of his acceptance or prior to April 1. The deposit may be refunded thereafter, if the withdrawal is deemed to be for a good reason. This deposit is credited against the first semester's tuition and fees.

Admissions are made without regard to race, color, religion, sex, national origin, or disability.

Degree Requirements

A candidate for the Juris Doctor (J.D.) degree must satisfy the entrance requirements, fulfill the residence requirements, and satisfactorily complete a total of 90 semester hours of work for credit and must take all required courses. The required courses consist of all first year courses, Constitutional Law II, The Legal Profession, and a senior writing seminar.



RESIDENCE REQUIREMENT

A candidate must complete six semesters of residence, not less than the last two of which must be in this School of Law. In order to obtain residence credit for a semester, a candidate must examine in a minimum of 12 hours of work and must obtain final credit in a minimum of 10 hours of work. A candidate who either examines in or obtains final credit for fewer than the required minimum hours will be given proportionate residence credit. No credit toward residence is given in courses in which a student receives a failing grade.

LIMITATION OF COURSE HOURS

No student may register for more than 16 hours without the consent of the dean. It is advisable for students to devote substantially their entire time to their work in the school. A student who undertakes substantial employment outside the school should reduce his course load.

ATTENDANCE AND WITHDRAWAL

Regular attendance is expected and required of each student. An instructor may exclude from any class a student who is unprepared and may, after prior notice, exclude from the final examination in any course any student whom, for reasons of lack of preparation or lack of attendance, he deems unqualified to receive credit in the course. Specific rules regulating attendance and withdrawal from courses are furnished each student prior to registration.

EXAMINATIONS

A student who has not withdrawn, or been withdrawn, from a course is expected to take the examination for that course at the regularly scheduled time. Unexcused failure to take an examination will result in a failing grade. If failure to take an examination is excused, the student may, with the permission of the dean and the instructor, take the examination after the rest of the class or at the time it is next regularly offered.

POOR SCHOLARSHIP RULE

Grades are given in numbers, with 75 being the average required for graduation. A student who fails to have a cumulative average of 74 at the end of the first year or 75 at the end of any other academic year will be dropped from the school for poor scholarship. A student whose average at the end of the first year is below 74 may appeal to the dean, who appoints an ad hoc committee to recommend acceptance or denial of the petition for readmission.

Tuition and Fees

Tuition and fees in the School of Law are established by the Board of Trustees and are subject to change whenever conditions make changes necessary. Present tuition and fees for regularly enrolled law students (taking twelve or more semester hours) are \$369.00 per semester for residents and \$893.00 per semester for non-residents. Books will cost about \$100 per semester.

Financial Aid

Although the School of Law has limited resources for financial aid at its disposal, some assistance is available.

The University maintains an Office of Student Work and Financial Assistance through which work on campus, cooperative work-study programs, the federal work-study program, various veterans benefits (both state and federal), tuition remission scholarships, and student loans may be negotiated. For more specific information, students may contact the Office of Student Work and Financial Assistance, Woody Hall, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

In addition, there are available through the law school:

1. A number of Dean's Club scholarships, made available through contributions by the school's benefactors.
2. The Judge James O. Monroe, Jr. scholarship, made available through the Judge James O. Monroe, Jr. endowment fund established by the Madison County Bar Association.
3. One scholarship available to a student from a minority group admitted to the entering class. This scholarship is sponsored by the Phi Alpha Delta Law Fraternity, International.
4. A cash grant of \$50 to a needy law student, made available by the Phi Alpha Delta Law Fraternity, International.
5. A limited loan fund established by the Illinois Bar Foundation, available only to second- and third-year students.
6. A limited number of research assistantships awarded to members of the second- and third-year classes primarily on a merit basis. These are provided from the school's state-appropriated funds. Assistantships are also awarded to each of the six members of the Moot Court Board.
7. A limited number of work opportunities in the law library and in the administrative offices of the school. These are provided from the school's state-appropriated funds.
8. A limited number of cash grants awarded from the school's activities funds derived from various sources, including application fees.

Specific instructions for applying for financial aid are mailed during the summer to entering students who indicate in their admission applications that they are interested in financial aid.

Housing

University on-campus housing is available for 5,600 single students and 576 married students. Off-campus housing is readily available. Inquiries concerning on-campus or off-campus housing may be obtained from University Housing, Washington Square, Southern Illinois University, Carbondale, Illinois 62901.

Honor Code

"The cornerstone of our legal system is the integrity of the individual lawyer." Preparation for law, therefore, must encourage individual integrity as well as understanding of law. The essence of an honor system is the observance by each student of high ethical standards of conduct. The system yields immediate tangible advantages of convenience—examinations are not supervised, a student's word is accepted as the truth, and ownership of personal belongings is respected; it yields also lasting intangible values of the spirit—those who have lived under an honor code are forever dissatisfied with any less rigorous standards. Students of the school have adopted an honor code and elected an ethics council to enforce it. Copies of the code, as amended, will be sent to applicants on request and will be sent routinely to all accepted applicants.

Student Bar Association

The student body has drafted and adopted a constitution and by-laws for the Student Bar Association of which every regular law school student is a member. The association functions primarily through officers and committees elected by the membership at large and plays an integral role in the operation and governance of the law school. The students who serve as representatives to the faculty meetings are elected by the students, and those who serve on the various faculty committees are appointed by the dean from a list submitted by the president of the Student Bar Association.

Legal Aid Clinic

The school operates a legal aid clinic which works directly with inmates of various state institutions such as the Illinois state prison at Menard, Illinois. The clinic has a full-time director who is also a member of the faculty and provides interested students with a number of internships and research assistantships. The work with these inmates, with the Land of Lincoln program for indigent persons, and with the public defender and appellate public defender programs, as well as with other selected programs, gives students an unusual opportunity for variety in the clinic experience. Civil as well as criminal problems are encountered. Classroom experience emphasizes preparation of and presentation of cases for trial, lawyer-client counseling, and negotiating skills.

Law Journal

The *Southern Illinois University Law Journal* is a scholarly legal publication which is printed twice yearly. The journal is managed and edited by an editorial board, with the published materials supplied by students, law professors, and other members of the legal profession. Work on the journal affords the student intensive training in legal research, analysis, and writing. All students are eligible to write for the journal and earn writing and academic credit for demonstrating superior writing skills. A small percentage of the journal candidates will be invited to be members of the editorial staff of the journal on the basis of grades at the end of the second and third semester. Membership on the editorial board is attained by completion of the writing and administrative requirements. There is an election for the offices of editor-in-chief, managing editor, articles editors, notes and comments editors, research editors, and business editor.

Moot Court

The moot court program, under the directorship of a full-time law faculty member, is a comprehensive one. It provides a required experience in appellate practice in the first year, an opportunity to pursue an advanced program in the second year, and eventual membership on the student moot court board which is selected from those interested and qualified. The school has participated in national moot court competition since 1974 and plans to continue doing so in the future. This team is selected from students enrolled in the advanced moot court course.

Concurrent J.D. and M.B.A. Programs

A student who has been admitted separately to the School of Law and to the graduate program in business administration may apply for permission to study concurrently for both the Juris Doctor and the Master of Business

Administration degrees. This permission must be requested from both the School of Law and the graduate program in business administration, ordinarily prior to entry into the second-year curriculum of the School of Law.

During the first academic year of concurrent work on the two degrees, the student enrolls only in the first-year law curriculum. In any subsequent academic term the student may enroll either for courses only in the School of Law or only in the Graduate School, or for courses in both units. A student registered for both law and graduate courses in the same term must enroll for a minimum of ten semester hours in law, and twelve semester hours in total, in order to meet A.B.A. residence requirements and the academic requirements of the School of Law.

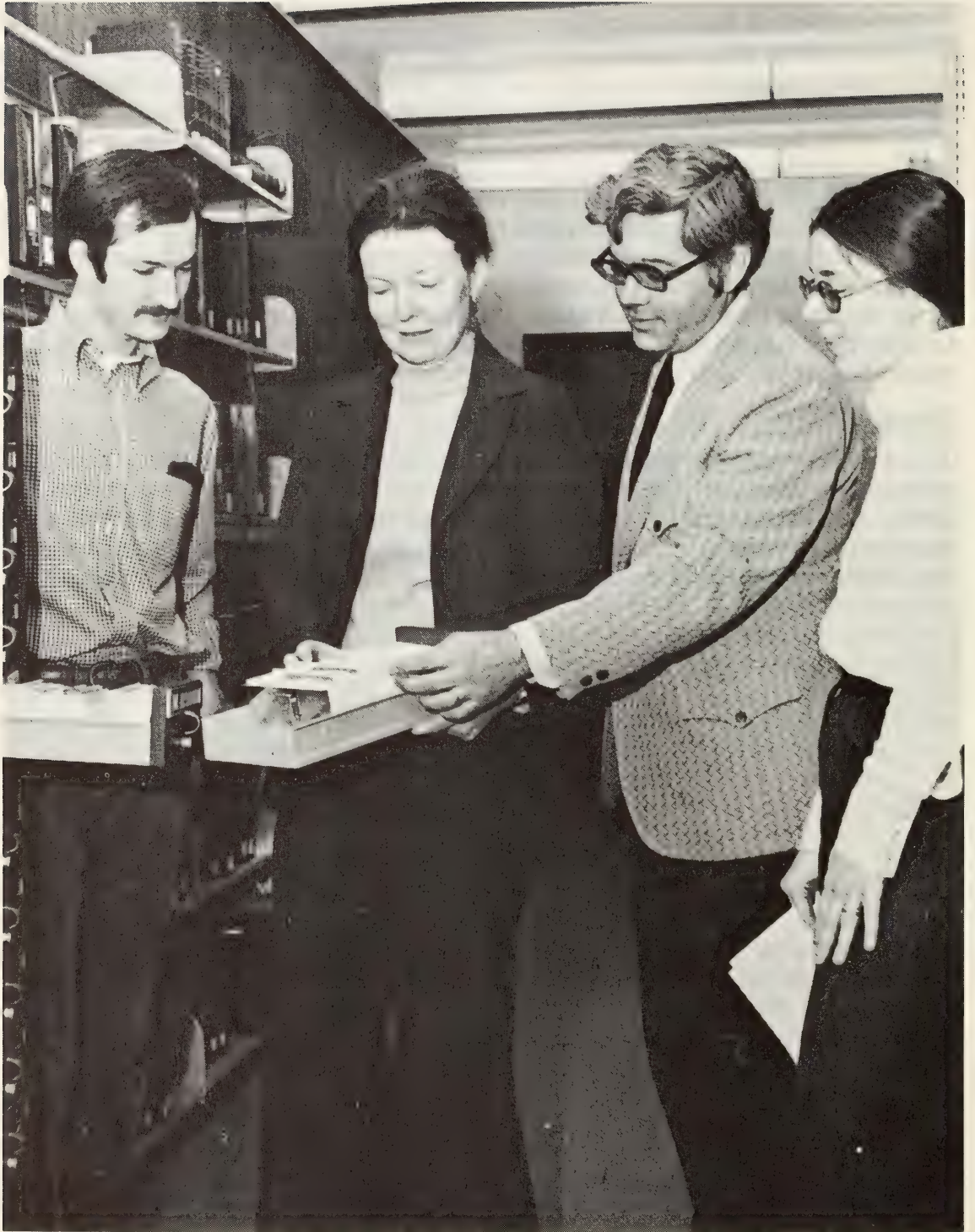
Completion of the concurrent programs requires that the student successfully complete 81 semester hours of law courses and 30 semester hours of courses that meet M.B.A. requirements. In addition, the student must fulfill all other requirements of the School of Law, the Graduate School, and the program in business and administration for the J.D. and M.B.A. degrees.

Placement Services

A full range of placement services is offered to students and alumni including current job listings, on-campus interviews with prospective employers, and resume assistance. Students are encouraged to begin career planning early in their law school years and to seek summer and part-time legal employment experience. The placement office will make every effort to help students identify and pursue employment opportunities.

Research Bureau

The purposes of the research bureau are to furnish high quality service to attorneys while providing paid research and writing experience to law students. Second and third year students are eligible for participation in the organization which is administered by a student steering committee with the advice and assistance of a faculty adviser and the placement director.



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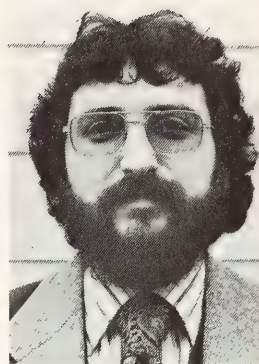
Faculty and Staff

Faculty

HARLAN S. ABRAHAMS, B.S., J.D., LL.M.

Assistant Professor of Law

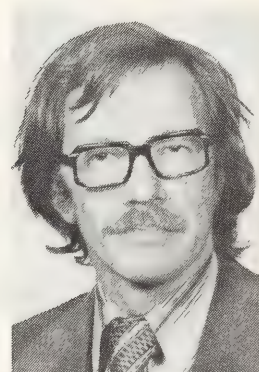
B.S. 1972, J.D. 1974, University of Nebraska; LL.M. 1975, Harvard. Admitted to practice in California. Summer associate 1973 and 1974, Rifking & Sterling, Inc., Beverly Hills; instructor in law 1974-75, first-year seminar program, Boston University; assistant professor at SIU School of Law since 1975. Author of articles in legal periodicals. On leave 1977-78 at University of Puget Sound School of Law.



ROBERT E. BECK, B.S.L., LL.B., LL.M.

Professor of Law

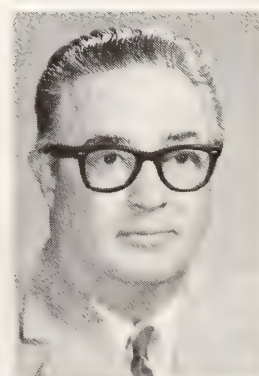
B.S.L. 1958, University of Minnesota; LL.B. 1960, University of Minnesota; LL.M. 1966, New York University. Admitted to practice in Minnesota. Private practice 1960-62; assistant professor, University of North Dakota, 1962-65; visiting associate professor, University of Maine, 1965-66; associate professor, 1966-68, professor, 1968-75, Chester Fritz Distinguished Professor, 1975-76, University of North Dakota; professor at SIU School of Law since 1976. Author of *Drainage Law, Waters and Water Rights* (R. Clark ed. 1967, 1972, 1976), and articles in legal publications.

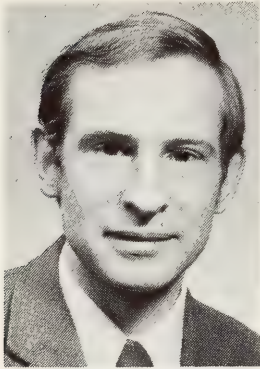


ROBERT H. DREHER, B.A., J.D., D.L.

Associate Professor of Clinical Law

B.A. 1936, University of Texas; J.D. 1940, University of Illinois; D.L. 1973, Oxford. Admitted to practice in Illinois and California. Special agent, F.B.I., 1940-46; private practice, 1946-67; associate professor, Center for the Study of Crime, Delinquency, and Corrections, and Department of Government, Southern Illinois University since 1967; associate professor of clinical law and director, clinical program, at SIU School of Law since 1974.





DARRELL W. DUNHAM, B.A., J.D., LL.M.

Associate Professor of Law

B.A. 1968, J.D. 1971, Willamette University; LL.M. 1972, Harvard. Admitted to practice in Washington. Law clerk Justice Sloan, Oregon Supreme Court, 1970; associate professor of law, University of Idaho, 1972-1975; visiting professor of law, University of South Dakota, 1975-1976; visiting professor of law, University of San Diego, Summer 1976; associate professor at SIU School of Law since 1976. Author of articles in legal periodicals.



DONALD W. GARNER, B.A., J.D.

Assistant Professor of Law

B.A. 1967, University of Texas at Arlington; J.D. 1971, University of Texas at Austin. Admitted to practice in Texas. Briefing attorney, Texas Supreme Court, 1971-72; private practice, 1972-74; assistant professor at SIU School of Law since January, 1974.



Faculty and Staff

Faculty / 17

HAROLD W. HANNAH, B.S., J.D.

Adjunct Professor of Law

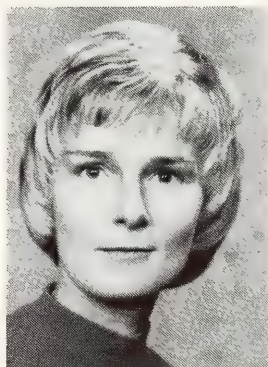
B.S. 1932, J.D. 1935, University of Illinois. Director, Division of Special Services for War Veterans, 1945-47; associate professor, agricultural law and administration, University of Illinois, 1935-41 and 1947-54; dean of resident instruction, College of Agriculture, 1954-59; group leader of contract team in India, 1955-57; professor of agricultural and veterinary medicine law, University of Illinois, 1959-71; private practice since 1971; lecturer and adjunct professor at SIU School of Law since 1975. U.S. Army, 1941-45. Author of *Law on the Farm* (MacMillan, 1948); *Law and Court Decisions on Agriculture* (with Krausz, Stipes Publishing Co., 1968); *Law for the Veterinarian and Livestock Owner* (Interstate, 1974); *Resource Book for Universities in Developing Countries* (University of Illinois Press, 1966); *The Legal Base for Universities in Developing Countries* (with Caughey, University of Illinois Press, 1967); *Law and the Farmer* (revision of Buescher, Springer Publishing Company 1975).



NANCY E. HOLLER, B.A., J.D.

Assistant Professor of Law

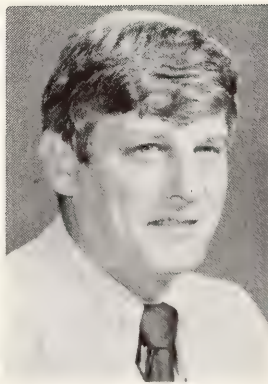
B.A. 1966, Wellesley College; J.D. 1969, University of Michigan. Admitted to practice in Illinois. In practice, Baker & McKenzie, Chicago, 1970-71; assistant professor 1972, University of Illinois; Governor's Commission for Revision of Mental Health Code, Illinois, 1974; assistant professor, at SIU School of Law since 1975.

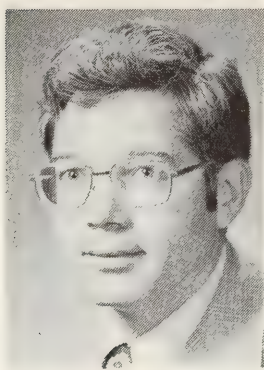


JOHN W. HUFFMAN, B.S., LL.B.

Adjunct Professor of Law

B.S. 1959, Eastern Illinois University; LL.B. 1964, University of Illinois. Private practice in Illinois, 1964-70; dean for judicial council, Kent State University, 1970-72; legal counsel, Southern Illinois University since 1972; adjunct professor of law at SIU School of Law since 1975.





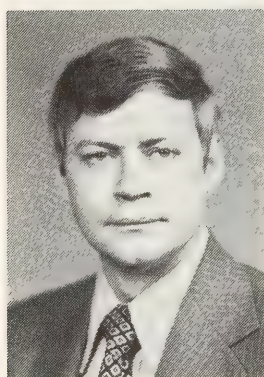
ROGER F. JACOBS, A.B., A.M.L.S., J.D.

Professor of Law and Librarian

A.B. 1962, J.D. 1970, University of Detroit; A.M.L.S. 1964, University of Michigan. Admitted to practice in Michigan. U.S.N. 1954-58. Librarian 1962-67, University of Detroit; librarian and assistant professor 1967-69, librarian and associate professor 1969-72, librarian and professor 1972-73, University of Windsor; librarian and professor at SIU School of Law since 1973. President, Canadian Association of Law Libraries, 1971-73; president, Mid-America Association of Law Libraries, 1974-76; member, editorial advisory board, Trans-Media Legal Publications since 1973; member, executive board, American Association of Law Libraries since 1976.

DAVID C. JOHNSON, B.S., C.P.A., J.D., LL.M.

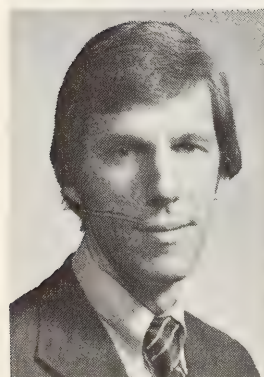
Professor of Law and Associate Dean



B.S. 1959, C.P.A. 1959, J.D., 1961, University of North Dakota; LL.M. 1964, University of Pennsylvania. Admitted to practice in North Dakota and Georgia. Graduate fellow 1964, University of Pennsylvania; assistant professor 1964-67, associate professor 1967-70, professor 1970-71, Emory University; visiting professor 1971-72, professor 1972-75, University of Oklahoma; professor at SIU School of Law since 1975. U.S. Army Captain, 1961-63.

EDWARD J. KIONKA, B.S., J.D., LL.M.

Professor of Law

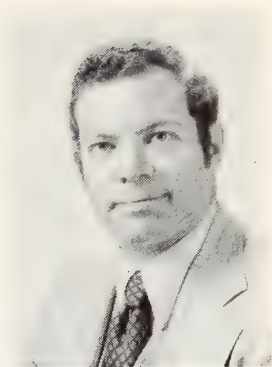


B.S. 1960, J.D. 1962, University of Illinois; LL.M. 1974, Columbia University. Admitted to practice in Illinois and Missouri. Private practice 1962-64, 1971-72, 1975-76. Lt. Cdr., USNR. Teaching associate, Columbia University, Fall 1962; instructor in law, University of Michigan, 1964-65; director, Illinois Institute for Continuing Legal Education, 1965-67; assistant dean and assistant professor of law, University of Illinois, 1967-71; special counsel, General Government Committee, Sixth Illinois Constitutional Convention, 1970; Krulewitch Fellow, Columbia University, 1972-73; associate professor, 1973-75, 1976-77, adjunct professor, 1975-76, professor at SIU School of Law since 1977. Author of *Torts in a Nutshell: Injuries to Persons and Property*, articles in legal periodicals. Editor of *Illinois Civil Practice After Trial* (Illinois Institute for Continuing Legal Education, 1970, 1976).

MARK R. LEE

Assistant Professor of Law

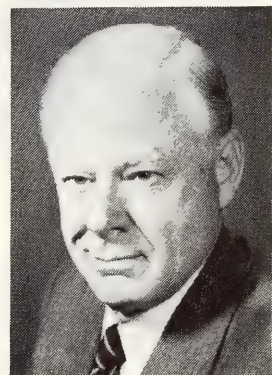
B.A. 1971, Yale University; J.D. 1974, University of Texas, Austin. Admitted to practice in Texas. Assistant attorney general, Austin, Texas, 1974-75; attorney, Department of Justice, Washington, D.C., 1975-76; instructor, University of Miami, 1976-77; assistant professor at SIU School of Law since 1977.



HIRAM H. LESAR, A.B., J.D., J.S.D.

Professor of Law and Dean

A.B. 1934, J.D. 1936, University of Illinois; J.S.D. 1938, Yale. Admitted to practice in Illinois, Missouri, U.S. Supreme Court. Sterling Fellow, Yale, 1936-37; assistant professor 1937-40, associate professor 1940-42, University of Kansas; senior attorney 1942, principal attorney 1943, Board of Legal Examiners, Washington, D.C.; U.S. Navy 1944-46 (Lt. Cdr.); associate professor 1946-48, professor 1948-57, University of Missouri; professor 1957-60, dean and Zumbalen professor 1960-72, Washington University; dean and professor of law at SIU School of Law since 1972; interim president 1974. Summer visiting professor: Illinois, 1947; Indiana, 1952; Southern California, 1959; North Carolina, 1961; New York University, 1965. Reporter, Special Study Committee on the Judiciary (Mo.), 1966-67. Author: *Landlord and Tenant* (Little-Brown, 1957); Vol. I Pt. 3 of *American Law of Property* (Casner ed.) (Little-Brown, 1952, Supp. 1977); articles in *Annual Survey of American Law*, 1953, 1955-70, in various legal periodicals, and in the *Encyclopaedia Britannica*.



T. RICHARD MAGER, B.A., J.D.

Associate Professor of Law

B.A. 1956, J.D. 1960, University of Missouri. Admitted to practice in Illinois and Missouri. Lecturer in law, 1963-66, University of Missouri; private practice, 1963-64; assistant prosecuting attorney, 1964, Boone County, Missouri; assistant counsel 1964-67 and counsel 1971, The Curators, University of Missouri; legal counsel 1971-72, Vice President for Development and Services 1972-75, Southern Illinois University; associate professor at SIU School of Law since 1975.

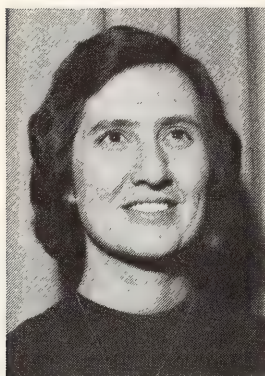




BRIAN E. MATTIS, B.S.B.A., J.D., LL.M.

Professor of Law

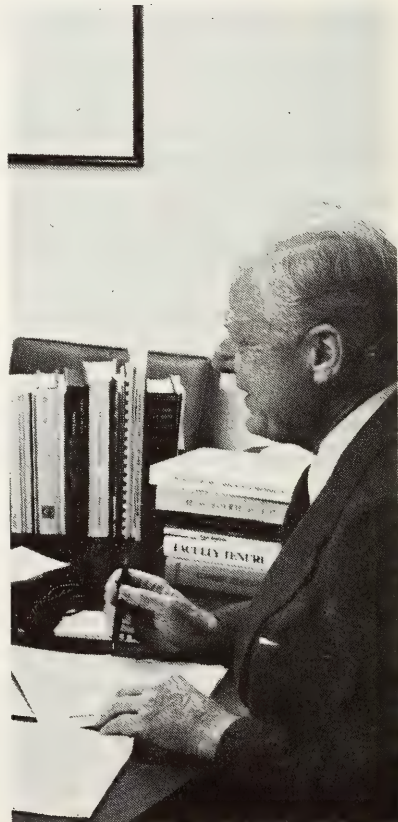
B.S.B.A. 1960, University of Florida; J.D. 1968, University of Miami; LL.M. 1969, Yale. Admitted to practice in Florida. Sterling Fellow, Yale, 1968-69; associate professor 1969-72, professor 1972-74, University of Nebraska; professor at SIU School of Law since 1974. Summer: University of Nebraska, 1970, 1972, 1973. Author of articles in legal publications.



TAYLOR MATTIS, B.A., J.D., LL.M.

Associate Professor of Law

B.A. 1960, University of Alabama; J.D. 1963, University of Miami; LL.M. 1969, Yale. Admitted to practice in Florida and Nebraska. Private practice, 1963-66; law clerk, U.S. District Judge Emmett Choate, 1966-68; Sterling Fellow, Yale, 1968-69; attorney, Nebraska Appellate Justice Project, 1972-74; associate professor at SIU School of Law since 1974. Author of articles in legal periodicals.



VALERIE G. MCAULIFFE

Visiting Professor of Law, Fall, 1977

LL.B.(Hons.) 1965, University of Western Australia; B.A. 1971, University of Western Australia. Tutor, temporary lecturer, lecturer, University of Western Australia, 1966– ; lecturer, Wadham College, Oxford University, U.K., 1974–1975, 1976–1977.



FRANK W. MILLER, B.A., LL.B., S.J.D.

Visiting Professor of Law, Summer, 1977

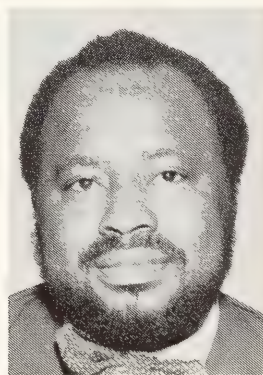
B.A. 1946, LL.B. 1948, S.J.D. 1954, University of Wisconsin. Admitted to practice in Wisconsin. AUS 1942–45. Graduate fellow 1948, University of Wisconsin; assistant professor 1948–53, associate professor 1953–56, professor 1956–62, Coles professor of criminal law and administration 1962–65, James Carr professor of criminal jurisprudence since 1965, Washington University. Author of *The Test of Factual Causation in Negligence and Strict Liability Cases* (with Becht, Washington University Press, 1961); *Prosecution: The Decision to Charge a Suspect with a Crime* (Little, Brown, 1969); *Criminal Justice Administration and Related Processes* (with Dawson, Dix and Parnas, Foundation Press, 1971, successor edition, 1976); *The Juvenile Justice Process* (Foundation Press, 1976); *The Mental Health Process* (Foundation Press, 1976); *Sentencing and the Correctional Process* (Foundation Press, 1976); articles in legal periodicals and in the *Encyclopedia Americana*.



ANDREW N. ONEJEME, LL.B., LL.M., J.S.D.

Associate Professor of Law

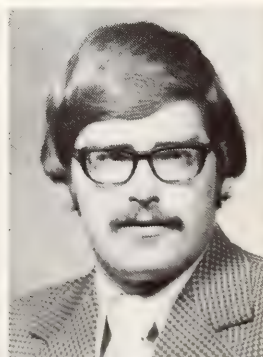
LL.B. 1960, London; LL.M. 1961, J.S.D. 1963, Yale. Admitted to practice in Nigeria. Graduate fellow, Yale, 1960–63; lecturer, Lagos University, Nigeria, 1965–70; research fellow, S.O.A.S., London, 1966–67; associate professor, University of Connecticut, 1971–72; Hofstra University, 1972–74; associate professor at SIU School of Law since 1974. Summer: University of Connecticut, 1972.

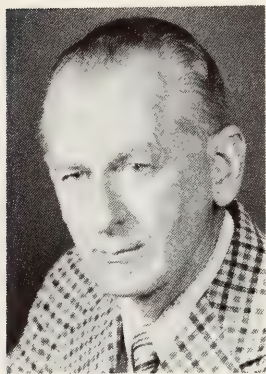


THOMAS P. POLITYKA, B.A., J.D.

Assistant Professor of Law

B.A. 1971, J.D. 1973, University of Nebraska. Admitted to practice in Nebraska. Law clerk, U.S. District Judge Robert Van Pelt, 1973–74; assistant professor at SIU School of Law since 1974.





THOMAS G. ROADY, JR., A.B., M.A., J.D.

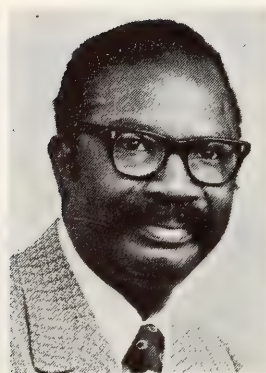
Professor of Law

A.B. 1940, M.A. 1949, J.D. 1948, University of Illinois. Admitted to practice in Illinois and Tennessee. AUS-AC, 1942-46, Maj.; Lt. Col., U.S.A.F. Res. University Fellow, Columbia University, 1948-49; assistant professor 1949-50, associate professor 1950-51, professor 1951-52, University of Tennessee; associate professor and assistant dean, Washington University, 1951-52; private practice in Illinois 1952-56; visiting professor, University of Missouri, 1954; professor, Vanderbilt University, 1956-68; professor, University of Tennessee, 1968-73; associate dean 1973-77, professor at SIU School of Law since 1973. Editor of *Professional Negligence* (with Andersen, 1960); *Essays on Procedures and Evidence* (with Covington, 1961); *Selected Problems in the Law of Corporate Practice* (with Andersen, 1960). Author of articles in legal periodicals.

R. DALE SWIHART

Visiting Professor of Law, Summer, 1977

A.B. 1953, DePauw University; J.D. 1957, Indiana University. Admitted to practice in Indiana. Teaching associate, Indiana University, 1957-58; assistant and associate professor, University of New Mexico, 1958-64; associate professor, University of Texas, 1964-65; associate professor and professor, Washington University, since 1965. Author of articles in legal periodicals.



EDWARD L. WELCH, B.S., J.D.

Adjunct Professor of Law

B.S. 1957, St. Louis University; J.D. 1960, Washington University. In private practice, East St. Louis and Edwardsville. Labor attorney with Allis-Chalmers and National Labor Relations Board, 1960-67; lecturer and adjunct professor of law at SIU School of Law since 1973.

Law Library Staff

ROGER JACOBS, A.B., A.M.L.S., J.D., *Professor and Librarian*

ELIZABETH S. KELLY, B.A., *Instructor and Assistant Librarian for Reader Services*

ELIZABETH W. MATTHEWS, B.A., M.S., Ph.D., *Assistant Professor and Assistant Librarian for Cataloging*

Administrative Staff

NORMA M. BROWN, B.A., *Registrar*

RITA L. MOSS, *Placement Director*



Southern Illinois University Bulletin

1978-1979 Undergraduate Catalog

Southern Illinois University
at Carbondale



Southern Illinois University at Carbondale is required to comply with the provisions of Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973. Title IX mandates that no person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. Section 504 provides that no otherwise qualified handicapped individual shall, solely by reason of the handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Inquiries concerning the application of Title IX or Section 504 regulations may be directed to Dr. Mary Gasser or Mr. Richard C. Hayes, University Affirmative Action Office, Anthony Hall, Room 104, telephone 536-6618.

This publication provides information about Southern Illinois University at Carbondale. Primary attention is given to its academic program, rules and regulations, and procedures. Students starting their collegiate training during the period of time covered by this catalog (summer 1978 through spring 1979) are subject to the curricular requirements as specified herein. Should these requirements subsequently be changed by the University, students are assured that necessary adjustments will be made so that no additional time is required of them, because of these changes in meeting their educational objectives. Where programs include requirements established by agencies external to the University, every effort will be made to follow this same principle so far as possible. Should subsequent curricular requirements changes work to the students' advantage, they may elect to meet the new requirements rather than those contained herein. This curricular requirement arrangement will extend for a seven calendar year period from date of entry for baccalaureate programs and three years for associate programs. If the students have not met their undergraduate educational objectives by that time, they will then become subject to current curricular requirements. Should the University find it necessary to discontinue an academic program, the effective date, unless otherwise dictated, will be such that the last regularly admitted class will be able to complete the program in regular time sequence. This means four years for baccalaureate and two years for associate programs. The University reserves the right to change information contained herein on matters other than curricular requirements without regard as to their date of entry into college.



Southern Illinois University Bulletin

**1978-1979
Undergraduate Catalog**

**Southern Illinois University
at Carbondale**

Southern Illinois University Bulletin

Volume 19, Number 6, October 1977

**Second-class postage paid at
Carbondale, Illinois 62901.**

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at Carbondale,
Carbondale, Illinois 62901,
five times per year, in June, July,
August, October, and November.**

This Catalog

The Undergraduate Catalog covers in detail questions concerning the undergraduate program of Southern Illinois University at Carbondale for the period from summer, 1978 through spring, 1979. It supersedes Volume 18, Number 8.

The following publications, may be obtained free from University Graphics, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Graduate Catalog

Undergraduate Catalog

School of Law Catalog

Schedule of Classes. Please specify session (fall, spring, or summer).

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Board of Trustees and Officers of Administration

Board of Trustees of Southern Illinois University

	Term Expires
Harris Rowe, <i>Chairman</i> , Jacksonville	1983
Ivan A. Elliott, Jr., <i>Vice-Chairman</i> , Carmi	1979
Margaret Blackshere, <i>Secretary</i> , Madison	1979
Elizabeth Byrnes, Carbondale (Student Trustee)	1978
James M. Grandone, Alton (Student Trustee)	1978
Wayne Heberer, Belleville	1981
Carol Kimmel, Rock Island	1983
William R. Norwood, Elk Grove Village	1983
A. D. Van Meter, Jr., Springfield	1981
James M. Brown, <i>General Secretary of the Southern Illinois University System</i>	

Officers of Administration, Southern Illinois University at Carbondale

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Arthur Sussman, *University Legal Counsel*
Jo Anne Thorpe, *Assistant to the President*

University Calendar

Summer Session, 1978

Eight-Week Session Begins
Independence Day Holiday
Final Examinations
Commencement

Monday, June 12, 7:30 A.M.
Tuesday, July 4
Thursday and Friday, August 3-4
Saturday, August 5

Fall Semester, 1978

Semester Classes Begin
Labor Day Holiday
Thanksgiving Day Holiday

Final Examinations

Monday, August 21
Monday, September 4
Saturday, November 18, 12:00 NOON—
Monday, November 27, 8:00 A.M.
Monday, December 11—Saturday,
December 16

Spring Semester, 1979

Semester Classes Begin
Lincoln's Birthday Holiday
Spring Vacation

Good Friday
Final Examinations
Commencement

Monday, January 15
Monday, February 12
Saturday, March 10, 12:00 NOON—
Monday, March 19, 8:00 A.M.
Friday, April 13
Monday, May 7—Saturday, May 12
Saturday, May 12

The University

History

Chartered in 1869 with instruction initiated in 1874, Southern Illinois University at Carbondale has entered its second hundred years in operation. Established in 1869 as Southern Illinois Normal University, the school acquired the name, Southern Illinois University, in 1947 by legislative action. At the outset of the 1970's, Southern Illinois University became a single state system with two universities: Southern Illinois University at Carbondale and Southern Illinois University at Edwardsville. Southern Illinois University at Carbondale also has a medical school campus at Springfield. The institution first operated as a two-year normal school but in 1907 became a four-year, degree-granting institution although continuing its two-year course into the 1930's. It was in 1943 that the school was transformed from a teacher-training institution into a university, thus giving official recognition to the area's demand for diversified training and service. Graduate work was instituted in 1943, with the first Ph.D. degrees granted in 1955. There has been diversification of programs at the undergraduate level with the establishment of the Colleges of Communications and Fine Arts, Education, Business and Administration, Human Resources, Liberal Arts, and Science and the Schools of Agriculture, Engineering and Technology, Technical Careers, and programs in University Studies. In addition to expansion of programs within the Graduate School, professional schools have been established in medicine and law.

In keeping with the state's master plan, the University's objective is to provide a comprehensive educational program meeting as many individual student needs as possible. While providing excellent instruction in a broad range of traditional programs, it also helps individual students design special programs when their interests are directed toward more individualized curricula. The university comprises a faculty and the facilities to offer general and professional training ranging from two-year associate degrees to doctoral programs, as well as certificate and non-degree programs meeting the needs of persons not interested in degree education.

Location

The city of Carbondale is approximately 100 miles southeast of Saint Louis, Missouri, in Jackson County, the western border of which is the Mississippi River. Immediately south of Carbondale begins some of the most rugged and picturesque terrain in Illinois. Sixty miles to the south is the historic confluence of the Ohio and Mississippi rivers, the two forming the border of the southern tip of Little Egypt, the fourteen southernmost counties in Illinois. The region immediately surrounding Carbondale is noted for its large peach and apple orchards. Within ten miles of



the campus are located two state parks and four lakes and much of the area is a part of the Shawnee National Forest.

Campus

Immediately south of the city of Carbondale, the University campus, comprising more than 3,290 acres, has developed a 981 acre portion with woods and a lake as a site for its academic buildings and residence halls. The buildings are located in wooded tracts along two circular shaped campus drives, named for Lincoln and Douglas. Two beautiful features that are located near the center of the campus complex are a wooded tract, preserved in the tradition of the native forests of Southern Illinois, and several buildings surrounding the site which formed the original campus a century ago. Approximately seventy large permanent buildings and several hundred small temporary buildings are located on the campus. Additional buildings now under construction or recently completed include the Recreation Building and the School of Technical Careers Building.

In addition to the numerous recreational facilities in the area, the University's own Lake-on-the-Campus offers facilities for swimming, boating, fishing, and picnicking with the confines of the campus. Some of the facilities for the School of Technical Careers remain at a site ten miles east of Carbondale although current plans call for their replacement by permanent instructional facilities on the Carbondale Campus. The part of its program related to aircraft technologies is located adjacent to the Southern Illinois Airport. The Touch of Nature Environmental Center, a 6,500-acre complex on the shores of picturesque Little Grassy Lake, provides opportunity for outdoor learning experiences.

Accreditations and Affiliations

North Central Association of Colleges
and Secondary Schools

National Council for Accreditation of
Teacher Education

Accrediting Council of the American
Assembly of Collegiate Schools of
Business (undergraduate and
master's level programs)

American Association for Accreditation
of Laboratory Animal Care

American Bar Association (provisional
accreditation)

Commission of Schools of American
Board of Funeral Service Education
(Mortuary Science program)

American Chemical Society*



American Council on Education for Journalism

Commission of Accreditation of Dental and Dental Auxiliary Educational Programs of the American Dental Association (Dental Hygiene and Dental Laboratory Technology programs)

American Dietetic Association (programs meet standards for traditional baccalaureate programs in field of nutrition or dietetics)

American Institute of Architects (Architectural Technology program)*

American Medical Association and American Association of Medical Colleges

American Physical Therapy Association (Physical Therapist Assistant program)

American Psychological Association

American Speech and Hearing Association by American Board of Examiners in Speech and Hearing

Council on Social Work Education

Engineer's Council for Professional Development (B.S. program in Engineering and B.S. program in Engineering Technology)

Federal Aviation Administration (Aviation Technology program)

Foundation for Interior Design Education Research

Illinois Office of Education

Superintendent of Education

State Teacher Certification Board

State Board of Education

Vocational Home Economics programs

State Plan for Administration of Vocational and Technical Education in Illinois

Illinois Department of Registration and Education (Associate Degree Nursing program)*

National Association of Industrial Technology (B.S. program in Industrial Technology)

National Association of Schools of Music

Society of American Foresters

National Shorthand Reporters Association (court reporter training program)*

* Program approved and/or annual report submitted.

Faculty

The University faculty is dedicated to excellence in teaching and to the advancement of knowledge in a wide variety of disciplines and professions. Many faculty members are well known both nationally and internationally for their

many varied research contributions. The Undergraduate Catalog lists the numerous programs offered by the faculty and, in addition, in Chapter 5 of this catalog the faculty members are listed by departments within the University in which they are appointed.

Curricula

The undergraduate majors and minors offered by Southern Illinois University at Carbondale are listed below in alphabetical order. Also indicated is whether a major, a minor, or both are offered. The academic unit which offers the major is listed as is the degree the student would expect to receive upon graduation. If a major may be completed in more than one academic unit, the other units are listed on additional lines. For example, the biological sciences major is offered through the College of Science. Students planning to teach biological sciences may also complete the major in the College of Education. The requirements for each of the programs listed below are explained in Chapter 4 of this bulletin. The degree abbreviations used are: A.A., Associate in Art; A.A.S., Associate in Applied Science; B.A., Bachelor of Arts; B.Mus., Bachelor of Music; B.Mus.Ed., Bachelor of Music Education; and B.S., Bachelor of Science.

In addition to the majors and minors listed, preprofessional programs may be completed in dentistry, law, medical technology, medicine, nursing, occupational therapy, pharmacy, physical therapy, public health, theology, and veterinary science.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Accounting	X		College of Business and Administration	B.S.
Administration of Justice	X	X	College of Human Resources	B.S.
Administrative Sciences	X		College of Business and Administration	B.S.
African Studies		X		
Agricultural Education	X		School of Agriculture	B.S.
			College of Education	B.S.
Agricultural Industries	X	X	School of Agriculture	B.S.
Agriculture, General	X	X	School of Agriculture	B.S.
Allied Health Careers	X		School of Technical Careers	A.A.S.
Animal Industries	X	X	School of Agriculture	B.S.
Anthropology	X	X	College of Liberal Arts	B.A.
Architectural Technology	X		School of Technical Careers	A.A.S.
Art	X	X	College of Communications and Fine Arts	B.A.
			College of Education	B.S.
Asian Studies		X		
Automotive Technology	X		School of Technical Careers	A.A.S.
Aviation Technology	X		School of Technical Careers	A.A.S.
Avionics Technology	X		School of Technical Careers	A.A.S.
Biological Sciences	X	X	College of Science	B.A.
			College of Education	B.S.
Black American Studies		X		
Botany	X	X	College of Science	B.A.
			College of Education	B.S.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Business and Administration	X		College of Business and Administration	B.S.
Business Economics	X		College of Business and Administration	B.S.
Business Education ⁶	X	X	College of Education	B.S.
Chemistry	X	X	College of Science	B.A., B.S.
			College of Education	B.S.
Child and Family	X		College of Human Resources	B.S.
Chinese ¹		X		
Cinema and Photography	X		College of Communications and Fine Arts	B.S.
Classical Studies ¹	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Clothing and Textiles	X	X	College of Human Resources	B.S.
Commercial Graphics—Design	X		School of Technical Careers	A.A.
Commercial Graphics—Production	X		School of Technical Careers	A.A.
Community Development		X		
Comparative Literature		X		
Computer Science	X	X	College of Liberal Arts	B.A.
Construction Technology—Building	X		School of Technical Careers	A.A.S.
Construction Technology—Civil	X		School of Technical Careers	A.A.S.
Consumer Studies ²		X		
Correctional Services	X		School of Technical Careers	A.A.
Dance ³		X		
Dental Hygiene	X		School of Technical Careers	A.A.
Dental Laboratory Technology	X		School of Technical Careers	A.A.
Design	X		College of Human Resources	B.A.
Early Childhood Education ⁴	X		College of Education	B.S.
Earth Science		X		
East Asian Civilizations ¹		X		
Economics	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Educational Media ⁴		X		
Electronic Data Processing	X		School of Technical Careers	A.A.S.
Electronics Technology	X		School of Technical Careers	A.A.S.
Elementary Education ⁴	X		College of Education	B.S.
Engineering	X		School of Engineering and Technology	B.S.
Engineering Biophysics	X		College of Science	B.S.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Engineering Technology	X		School of Engineering and Technology	B.S.
English	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Family Economics and Management	X		College of Human Resources	B.S.
Finance	X		College of Business and Administration	B.S.
Food and Nutrition	X		College of Human Resources	B.S.
Forestry	X		School of Agriculture	B.S.
French ¹	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Geography	X	X	College of Liberal Arts	B.A., B.S.
			College of Education	B.S.
Geology	X	X	College of Science	B.A., B.S.
German ¹	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Greek ¹		X		
Health Education	X		College of Education	B.S.
History	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Home Economics Education ⁶	X		College of Education	B.S.
Industrial Technology	X		School of Engineering and Technology	B.S.
Interior Design	X		College of Human Resources	B.S.
Japanese ¹		X		
Journalism	X	X	College of Communications and Fine Arts	B.S.
			College of Education	B.S.
Language Arts and Social Studies	X		College of Education	B.S.
Latin ¹		X		
Latin American Studies	X		College of Liberal Arts	B.A.
Law Enforcement	X		School of Technical Careers	A.A.
Linguistics	X	X	College of Liberal Arts	B.A.
Marketing	X		College of Business and Administration	B.S.
Mathematics	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
			College of Science	B.S.
Microbiology	X	X	College of Science	B.A.
Mortuary Science and Funeral Services	X		School of Technical Careers	A.A.
Museum Studies		X		
Music	X	X	College of Communications and Fine Arts	B.Mus.
			College of Education	B.Mus.Ed.
			College of Liberal Arts	B.A.
Nursing	X		School of Technical Careers	A.A.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Occupational Education ⁶	X		College of Education	B.S.
Philosophy	X	X	College of Liberal Arts	B.A.
Photographic and Audio- Visual Technology	X		School of Technical Careers	A.A.
Physical Education	X	X	College of Education	B.S.
Physical Therapist Assistant	X		School of Technical Careers	A.A.
Physics	X	X	College of Science	B.S.
			College of Education	B.S.
Physiology	X	X	College of Science	B.A.
Plant and Soil Science	X	X	School of Agriculture	B.S.
Political Science	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Psychology	X	X	College of Liberal Arts	B.A.
Radio-Television	X		College of Communica- tions and Fine Arts	B.S.
Recreation	X	X	College of Education	B.S.
Religious Studies	X	X	College of Liberal Arts	B.A.
Russian ¹	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Secretarial and Office Specialties	X	X	School of Technical Careers	A.A.
Social Studies	X		College of Education	B.S.
Social Welfare	X		College of Human Resources	B.S.
Sociology	X	X	College of Liberal Arts	B.A.
Spanish ¹	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Special Major ⁷	X			B.A., B.S.
Special Education	X		College of Education	B.S.
Speech Communication	X	X	College of Communica- tions and Fine Arts	B.S.
			College of Education	B.S.
			College of Liberal Arts	B.A.
Speech Pathology and Audiology	X		College of Communica- tions and Fine Arts	B.S.
			College of Education	B.S.
Technical Careers	X		School of Technical Careers	B.S.
Theater	X	X	College of Communica- tions and Fine Arts	B.S.
			College of Liberal Arts	B.A.
Tool and Manufacturing Technology (Numerical Control)	X		School of Technical Careers	A.A.S.
Uncommon Languages ⁵		X		
University Studies	X			B.A., B.S.
Zoology	X	X	College of Science	B.A., B.S.
			College of Education	B.S.

¹Described under Foreign Languages and Literatures²Described under Family Economics and Management³Described under Physical Education⁴Described under Curriculum, Instruction, and Media⁵Described under Linguistics⁶Described under Vocational Education Studies⁷A special major may be completed in any academic unit.

Visits to Campus

Southern Illinois University at Carbondale welcomes the opportunity to visit with prospective students. Mondays through Fridays, 8 A.M. to 4:30 P.M., admissions counselors are available to discuss admissions requirements and procedures, the various programs offered at Southern Illinois University at Carbondale, the procedures for applying for housing and financial aid, as well as general information about the University and community. The counselors can also arrange guided tours of the campus and meetings with representatives of appropriate departments or offices. In order to benefit most from the visit to Southern Illinois University at Carbondale, it is advisable to arrive before 2 P.M.

Arrangements for a campus visit can be made by writing School/College Relations, Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, or by calling a toll free number in Illinois (800-642-3531) or the direct number (618-453-4381). Arrangements should be made at least two weeks in advance of the day requested. Groups desiring to visit the campus are urged to give a month's advance notice, specifying the number to attend, day and time of arrival, and special interests or requests.

Applying for Admission

Request application from the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, or call toll free in Illinois 800-642-3531. For admissions requirements see Chapter 2.

Campus Life

Student Activities

More than 300 student organizations operate on campus under the direction of the Student Activities Center, located in the Student Center, third floor. Foremost among these are Student Government and Graduate Student Council which are the official representative student organizations for their respective constituencies. It is the initial responsibility of these two groups to represent students in university affairs which determines student life on campus. The Student Government Activities Council is the activity programming branch of Student Government created to satisfy the social, educational, cultural, recreational, and co-curricular needs of students. The council is responsible for initiating, planning, and developing an activities program which is sensitive to the contemporary needs of students. This group is student staffed and is responsible for a large percentage of all activities on campus. The Black Affairs Council is the coordinating and governmental body for the eighteen black student organizations of the university. The Council takes a major responsibility for programming of social, cultural, and educational programs for blacks. The Inter-Greek Council is the activity coordinating council for the university's eighteen social fraternities and eight social sororities. This council provides activities which create responsibility for and awareness of the academic community as well as the Carbondale community. The remainder of the vast number of student organizations consists of a varied list of special and public interest groups, religious groups, scholastic and professional honoraries, and departmental organization. A year-round student voluntary program, Mobilization of Volunteer Effort, is also operated from this office.

The professional staff of the Student Activities Center aids students and student organizations in fiscal management, organizational matters, and helps these organizations to better understand and utilize the policies and procedures of the university relating to student activities and governance. Homecoming, Parent's Day, Spring Festival, Activities Fair, and many other exciting events are also planned and developed by the staff of the Student Activities Center.

Student Center

The Student Center is the community center of the University for all students, faculty, administration, alumni, and guests. It is not just a building — it is an organization and a program. Together they represent a well-considered plan for the community life of the University.

As a community center it performs four important missions. It supplies support services which compliment the academic mission of the university through the bookstore, food service, information services, and meeting facilities. It is part of the educational program of the college and serves as a laboratory of citizenship and leadership through participation in its various boards and committees that provide a campus-wide social, cultural, and recreational program. It is an extension of the classroom which allows practicum students and graduate assistants and interns the opportunity to develop on-the-job expertise in their field of learning. It serves as a unifying force in the university, cultivating interactions on a common ground between students, faculty, staff, alumni, and friends. It is a focal point that alumni and students can relate to when returning to campus.

The Student Center covers almost eight acres of floor space and is open approximately 16 hours a day, seven days a week. The University Bookstore sells new and used textbooks and school and personal supplies. A variety of food services are offered in the cafeteria, fast foods snack bar, pizza parlor, restaurant, and catering service. Other facilities and services are automated post office, ticket sales for most campus events, bowling lanes, billiard room, craft shop, art exhibit and display case areas, television and video lounges, and several general lounges for study and relaxation.

Other available facilities include ballrooms, an auditorium, and several private meeting and dining rooms. Offices in the Student Center are the Student Center Administrative Office, the Student Activities Office, and the student organization and student government offices.

SIU Arena

The SIU Arena is designed to accommodate athletic events, meetings, musical programs, stage performances, and similar activities that demand a large indoor participant area or facilities to accommodate large audiences. The facilities and staff are available to help meet the requirements of the educational program, the needs of the intercollegiate athletics program, and the needs of the intramural and recreation program, as well as those of Area Services, the Division of Continuing Education and Student Activities. The SIU Arena also provides a popular entertainment series to help fulfill the educational, cultural, social, and entertainment needs of the University community.

Shryock Auditorium

Shryock Auditorium, located amid "old campus" of Southern Illinois University at Carbondale, stands as one of the fine and performing arts centers of Southern Illinois. The auditorium is equipped to handle almost any type of event, from the performing arts on a grand scale such as opera and ballet, to large group meetings and conferences. The auditorium, seating over 1,200 guests, includes a dressing room complex capable of accommodating up to 70 performers, lighting and sound reinforcement systems incorporating some of the most advanced designs, and an enlarged stage area. Air conditioned throughout the guest areas, the facilities provide the utmost in audience comfort.

Campus Communications Media

WSIU TELEVISION AND RADIO

The SIU Broadcasting Service operates two maximum power, full-color television stations and one regional FM stereo radio station. The two television stations,

WSIU-TV, Channel 8 in Carbondale, and WUSI-TV, Channel 16 in Olney, are affiliated with the Public Broadcasting Service and have a potential audience of more than 1,500,000 in their coverage area of fifty-one counties. WSIU(FM) a 50,000 watt stereo station at 91.9 FM, is affiliated with National Public Radio and serves a potential audience of over 1,250,000 in its broadcast reach of forty-five counties. Its programming is wide-ranging, from popular and classical music to information, and a heavy schedule of locally-produced newscasts.

NEWSPAPER

The *Daily Egyptian*, campus newspaper, is issued Tuesday through Saturday each week on campus and in nearby campus locations. The newspaper is a laboratory newspaper for students in the School of Journalism, produced under professional supervision, using a student editor and staff. Students working on the staff are paid, but volunteers may also work on the paper. Students work at production, advertising, and distribution jobs on the newspaper, making the total paid staff more than 100 students.

Men's Intercollegiate Athletics

Southern Illinois University at Carbondale has one of the finest all-around men's athletic programs in the country, fielding varsity teams in eleven sports: football and cross country in the fall; basketball, indoor track, gymnastics, swimming, and wrestling in the winter; and baseball, outdoor track, tennis, and golf in the spring.

The 1976-1977 school year saw the Salukis, named for an ancient Egyptian hunting dog, win the Missouri Valley Conference title in basketball, cross country, and indoor track and Southern Illinois University at Carbondale was rated a good shot at winning every spring sport title. Also, in 1976, the Salukis reversed a long string of losing football seasons, going from a record of 1-9-1 to 7-4 and setting the stage for their first attempt at the Missouri Valley Conference title in the fall of 1977.

Women's Intercollegiate Athletics

The Women's Intercollegiate Athletic Program provides women with intercollegiate competition in eleven sports: badminton, basketball, cross country, field hockey, golf, gymnastics, softball, swimming, tennis, track and field, and volleyball. Three separate competitive seasons, fall, winter, and spring, allow athletes to participate in three different sports during the school year. Women's intercollegiate athletics has a winning 37-year history, which includes one national golf championship and three national gymnastics championships. Women's intercollegiate athletics seeks to serve the entire University community by providing top athletic competition for viewing. Women's intercollegiate athletics is affiliated with the state, regional, and national Association for Intercollegiate Athletics for Women.

Intramural-Recreational Sports

All intramural and recreational sports activities for the University community are programmed in the Intramural-Recreational Sports Center, located on the northeast corner of the campus. Seven basic programs encompass the overall intramural-recreational sports areas: men's intramurals, women's intramurals, co-rec intramurals, informal recreation, sports clubs, recreation for special populations, and Lake-on-the-Campus. A handbook and brochures with basic information about the various programs may be obtained by contacting the Office of Intramural-Recreational Sports.

Campus Services

Library Affairs

Morris Library contains approximately 1,600,000 items, 17,000 current periodi-

cals and serials, 1,500,000 units of microfilm material, 13,000 phonograph records, 200,000 government documents, and collections of textbooks, newspapers, maps, films, and framed art works. With the exception of those in the rare book room, all books are arranged on open shelves and assessible for browsing.

Recognizing the importance of libraries in a college education, the University has given special attention to both quantity and quality of library development. More than 79,000 volumes were added to the collections during the past year. Reference librarians are available throughout the library to assist in locating and using materials. Handouts on library use can be had for the asking. Those wishing further instruction may enroll in a course on library research methods listed under General Studies in Chapter 4.

Morris Library houses four subject libraries (education, humanities, science, and social studies), a reserve books facility, the Learning Resources Service, and an undergraduate library. Microtext reading equipment is available in each subject library; hi-fidelity phonograph listening equipment is provided in the humanities library. A central card catalog of the entire collection is located on the first floor; books are charged out from a central circulation desk, using an automated charging system. Inexpensive coin operated photocopying equipment is available to patrons on every floor.

An undergraduate library was opened for service the fall of 1971. Located on the first floor, the new facility has a collection of over 71,000 volumes that are considered basic to the undergraduate curriculum. There is a professional staff to give special attention to the needs of undergraduate students and spare them some of the frustrations of finding what they want in a universe of books as large and complex as a research library, although they are welcome to use it when their wants cannot be satisfied by the smaller collection.

Within the library system, the Learning Resources Service makes films available to the instructional faculty for individuals and small groups of students. The service supports the full range of instructional activity with the design, development, and utilization of instructional media.

One facility of the Learning Resources Service is the Self Instruction Center. This center provides slides, audio and video tapes, cassettes, and combinations of these kinds of materials for scheduled classes and enrichment studies.

Another facility is the Student Media Design Laboratory, open to students who need to produce instructional media for classes, projects, and the student teaching experience. Materials are made available at cost and professional assistance is provided for both design and production of the media.

Student Health Program

The goal of the University student health program is to reduce the incidence and severity of health impairment among students. The principal constraints upon this program are 1) what is technologically possible, and 2) what is economically possible.

This goal is addressed through seven distinct but interrelated program thrusts: 1) Primary Care. The primary care or out-patient services are provided by a team of eight physicians and forty other allied health staff as well as many student workers. The services include x-ray, laboratory, pharmacy, etc. 2) Intermediate Care. Intermediate care or infirmary care is available in the twelve bed infirmary. Intermediate care is provided for non-acute illness when skilled nursing care is required, but the student is not in need of hospitalization. 3) Secondary Care. Hospitalization is provided at Memorial Hospital of Carbondale and includes coverage of up to 31 days of hospitalization per illness. 4) Speciality Care. Speciality care is available in the Carbondale area through contractual arrangements with local specialists. 5) Emergency Care. Emergency care is provided through Memorial Hospital of Carbondale on a 24-hour basis. Ambulance service is available for emergency transportation in cooperation with the Jackson County Ambulance Service. 6) Extended/Supplemental Care. Medical services that are not provided in the Carbondale area or are needed for acute or emergent care when an

eligible student is out of the area are covered through special arrangements with an insurance company. Questions regarding claims for out-of-the-area care should be directed to the staff of the student health program. 7) Prevention Programs. Through effective prevention and health maintenance while a student, present and future health impairment level may be substantially influenced. Some desired behavioral influence may be achieved by classroom learning; much, however, will be achieved by the work of health care professionals in their interpersonal relationships with the students. In response to the concern for the physical and social environment of the student and health maintenance, prevention programs provide information, educational counseling, and referrals. The main areas of programming include education for healthful living, human sexuality, drug crisis, coordination with other health resources in the University and community, and reduction of health impairment upon the educational process.

Women's Programs

Women's Programs, an office of Student Services, was designed to meet the special needs of women students. The office provides information and support for women making educational, vocational, and personal decisions; referral to services helpful to women; information and resources about women and changing sex roles; workshops, seminars, and discussions focusing on women's interests and needs; speakers for groups on topics related to women, and a listing of women's studies courses.

Career Planning and Placement Center

The Career Planning and Placement Center provides students with the opportunity to explore careers, identify interests, examine work values, and assess abilities. The Career Planning and Placement Center provides job vacancy listings, assists students to prepare for entry into the labor market, and counsels students who have not chosen a major. The Career Planning and Placement Center is staffed with professional career counselors, placement consultants, and psychometrists. The Career Planning and Placement Center is visited annually by over 400 recruiters who represent 175 businesses, government agencies, schools, and service agencies who schedule interviews with graduating students. The Career Planning and Placement Center is also a regional test center for students who wish to enter professional or graduate school, and administers the Law School Aptitude Test, the Graduate Record Exam, the Miller Analogy Test, and others. The cooperative professional practice program, included in the Career Planning and Placement Center, is an optional educational pattern that integrates periods of paid career-related work experience into academic programs. Such experience can be either full-time work every other semester (alternate co-op) or part-time work every semester (parallel co-op). This intermixing of theoretical study and professional practice provides for career orientation, professional development, personal growth, dollar income, and ultimate employment. Co-op, the experience that pays, is available to men and women in essentially all academic areas and without geographical limitations. Students interested in any career-related work experience such as internships, co-ops, work study, or other paid or unpaid work experience are advised to contact their academic department, the Career Planning and Placement Center, the Student Work and Financial Assistance Office, and the bachelor degree program at the School of Technical Careers.

The Career Planning and Placement Center is also a regional test center for students who wish to enter professional or graduate school, and administers most national testing programs for admission, certification and licensing. Refer also to the section on proficiency examinations in the next chapter.

Counseling Center

The Counseling Center is staffed with professional counselors qualified to assist students with personal development and resolution of problems. Personal prob-

lems, marital adjustment difficulties, social skill development, parental conflict, and sex role awareness development are areas of frequent concern to students. Both group and individual counseling are provided within an atmosphere of confidentiality and trust.

Specialized Student Services

The University maintains a commitment to make appropriate services, programs, and facilities available to students with physical handicaps. Numerous services are provided to handicapped students through the Specialized Student Services Office and other departments in order that this student population may obtain the maximum academic, social and cultural benefits within the University community. Available services and programs within the University include preadmission planning, orientation and mobility training, adapted van transportation, wheelchair repair, attendant recruitment and referral, adapted recreation, physical therapy and speech therapy, specialized materials and equipment for visually handicapped students, reader recruitment and referral, proctoring academic examinations, career development and placement services, liaison with academic departments and other University offices, and liaison with agencies such as the Illinois Division of Vocational Rehabilitation.

The campus is quite accessible and usable by the student who is wheelchair confined, visually handicapped, or otherwise limited in mobility. The University Housing Office also provides modified housing facilities in the Thompson Point Residence Halls and in the family housing areas. The Housing Office and Specialized Student Services Office work with the student to ensure the acquisition of appropriate housing.

Office of the University Ombudsperson

This office assists students and other members of the community in resolving large and small problems arising within the University context. Oftentimes this involves cutting through red tape, establishing communication or simply pointing out proper procedures to follow. In cases where it is necessary, conciliation is sought by mediation between the student and agents of the University. No matter whether the problem is simple or complex, an effort is made to handle each case with care and dispatch. The thrust is toward finding reasonable, fair resolutions to problems and to helping assure that the student is treated humanely and as an individual.

All inquiries are treated confidentially. The office is located in Woody Hall, C302, phone (618) 453-2411.

Clinical Center

The Clinical Center is staffed by professional personnel and supervised student diagnosticians, therapists, and counselors. It offers diagnostic and treatment services to faculty, staff, University students, and other individuals in the community. Cooperating in this clinic are the Departments of Curriculum, Instruction, and Media; Guidance and Educational Psychology; Psychology; Social Welfare; Special Education; Speech Pathology and Audiology; and Physical Therapy.

Diagnostic services include assessment of psychological, speech, hearing, reading, and general education problems. Therapy services include various forms of counseling and behavior modification, social casework, speech and audiological therapies, physical therapy, and educational remediation.

Consultant services are also available to professional persons and organizations.

Alumni Services

Alumni Services serves as a liaison between the University and its alumni. It maintains records on all graduates and provides necessary information to the academic units for various surveys and reports. It serves as a base for the SIU

Alumni Association (a separate not-for-profit corporation) and carries the University message to thousands of alumni throughout the world through its publications and alumni club meetings. It conducts programs such as the "Great Teacher" award, and grants scholarships, provides for student loans, and the funding of selected faculty research projects.

University Museum and Art Galleries

The University Museum and Art Galleries serves the campus community and surrounding area in many ways, most visibly in its active program of both permanent and changing exhibits. The permanent exhibits are housed in the north wing of Faner Hall and are designed to give visitors an authentic glimpse of the area's past. There are dioramas depicting pioneer life from schoolroom to public house as well as walk-through displays of such essential early activities as blacksmithing, broom-making, and weaving, all furnished from the large permanent research collection.

Temporary exhibits are displayed in a gallery in the north wing of Faner Hall and in Mitchell Gallery in the Home Economics Building. These exhibits change often and include each spring and summer a series of thesis exhibits of the Master of Fine Arts degree, a requirement of all candidates for that degree in art, as well as faculty art and photography exhibits, art exhibits drawn from the permanent collection, and some exhibits designed around a particular theme such as blacksmithing or archaeology. In addition to these formal exhibits, works of art from the permanent collection are displayed in many other campus locations.

The University Museum and Art Galleries also serves students in more specific ways, by providing on-the-job training, courses, and an opportunity for staging practicum exhibits to those who see their future jobs or graduate school training in the growing field of museology. Through these avenues, students are able to draw on the extensive collections which include approximately 1250 works of art, as well as exhibits, study, and research collections from many areas of the world.

Campus Living

On-Campus Housing for Single Students

Southern Illinois University at Carbondale offers a variety of living experiences through the on-campus residence halls for single students. These halls provide not only the usual room and board but also have special opportunities for participation in recreational and academic activities. Two distinct advantages of living on campus are the ready access to all facilities of the campus, such as the library, and the absence of a need for special transportation since all campus activities are within easy walking distance. Meal service in all areas except Small Group Housing provides 19 meals a week; three meals each day five days a week, brunch and dinner on Saturday, and breakfast and noon dinner on Sunday. Unlimited second helpings are offered, and a new feature is a special diet table for students with special problems. Co-ed living is available in all housing areas except to first semester freshmen students. All rooms are equipped with twin-sized beds, closet space, chest of drawers, desks, study chairs, and draperies. Linen service provides two sheets and one pillowcase weekly. Study lamps, towels, pillows, and other bedding materials must be provided by the student.

Freshmen under the age of 21, not living with parents or guardians, are required to live in on-campus residence halls, or similar privately-owned residence halls. The privately-owned residence halls must provide facilities, food service, and supervision comparable to on-campus housing. Sophomores under the age of 21, not living with parents or guardians, are required to live in on-campus residence halls or University approved off-campus housing. Off campus housing may include rooming houses and residence hall apartments. There are no university regulations for junior, senior, graduate, married students or those students 21 years of

age or over. Housing contracts are for the fall and spring semesters or the school year with summer contracts being issued separately. University housing closes during breaks and official university vacations.

Thompson Point Residential Area. The Thompson Point residential area consists of eleven halls, each housing approximately 120 students. Lentz Hall serves as the commons unit for food service and such services as a library, post office, snack bar, recreation center, and game rooms. The halls are located on the shores of Lake-On-The-Campus and provide unique opportunities at the lake for activities such as swimming, boating, fishing, and hiking. Also included in the Thompson Point residential area are special features for handicapped students.

University Park Residential Area. The University Park residential area consists of Neely Hall, a 17-story, air-conditioned residence hall, and Allen, Boomer, and Wright Halls, 4-story men's triad buildings. Trueblood Hall serves as the commons unit providing the cafeteria, snack bar, game room, and post office. University Park is connected to the campus by an overpass which reaches from Trueblood Hall over the streets to the center of campus.

Brush Towers. Brush Towers consists of two 17-story, air-conditioned halls, Mae Smith Hall for men and women and Schneider Hall for men. The commons unit is Grinnell Hall which provides the cafeteria, snack bar, and game room.

Small Group Housing Area. The Small Group Housing area provides housing for recognized sororities and fraternities. Each building houses about fifty students and includes lounge and dining area, kitchen, and snack bar. Assignment of students to this area is by invitation from the fraternal organization.

For the 1977-1978 academic year, the costs for on-campus housing for an academic year are \$1,520, except that for men in University Park the costs are \$1,470. The total contract may be paid in advance, by semester, or in monthly installments. However, an advance payment is due at the time the contract is signed and returned.

More information or application forms may be obtained by writing the supervisor of contracts, University Housing.

Housing for Married Students

There are 576 apartments both furnished and unfurnished, available for married students. The costs are from \$124 to \$151 a month with all utilities furnished.

Off-Campus Facilities

University Housing seeks continually to influence both the availability and quality of off-campus housing for students in terms of meeting as fully as possible the educational, physical, social, and economic needs of students living off campus as these needs relate to the objectives of the University. Numerous accepted living centers for freshmen and sophomore students off campus aid in the relationship between the student's living environment and progress toward the attainment of the educational goals. The cost for off-campus housing ranges from \$125 to \$300 a month. Information may be obtained by writing directly to the supervisor of Off-Campus Housing, Building B, Washington Square. It is not considered wise to contract for an off-campus living facility, sight unseen.

Tuition and Fees and Other Financial Information

It is difficult to indicate the specific cost of attending the University because of the differences in personal spending habits. However, the following information may be helpful.

Tuition and Fees

Tuition and fees charged students are established by the Board of Trustees and are subject to change whenever conditions necessitate. All assessments are on a per-hour basis, with 12 hours considered full time. Students will be assessed the following tuition and fees each term:

ON-CAMPUS UNDERGRADUATE TUITION AND FEE SCHEDULES

Semester Hours Enrolled	Illinois Residents			Non-Illinois Residents		
	Tuition	Student Fees ¹	Total	Tuition	Student Fees ¹	Total
1	\$ 22.00	\$ 11.34	\$ 33.34	\$ 66.00	\$ 11.34	\$ 77.34
2	44.00	14.42	58.42	132.00	14.42	146.42
3	66.00	19.75	85.75	198.00	18.75	217.75
4	88.00	25.25	113.25	264.00	25.25	289.25
5	110.00	30.75	140.75	330.00	30.75	360.75
6	132.00	76.25	208.25	396.00	76.25	472.25
7	154.00	81.75	235.75	462.00	81.75	543.75
8	176.00	87.25	263.25	528.00	87.25	615.25
9	198.00	92.75	290.75	594.00	92.75	686.75
10	220.00	98.25	318.25	660.00	98.25	758.25
11	242.00	103.75	345.75	726.00	103.75	829.75
12 or more	262.00	109.25	371.25	786.00	109.25	895.25

¹Information concerning student fees and their distribution is given below.

The fees which have been established by the Board of Trustees are payable by all students unless they are specifically exempted by the Board of Trustees. All fees are considered to be institutional in nature and require payment regardless of whether or not the student receives direct benefits or is in a location which permits access to such benefits.

STUDENT FEE DISTRIBUTION

Semester Hours Enrolled	STS Grant (1)	Student Attorney (2)	Student Center (3)	Student Activity (4)	SWRF (5)	Athletic (6)	Medical (7)
1	\$2.25	\$1.00	\$ 5.00	\$.44	\$.98	\$ 1.67	\$ —
2	2.25	1.00	5.00	.88	1.96	3.33	—
3	2.25	1.00	7.25	1.31	2.94	5.00	—
4	2.25	1.00	9.67	1.75	3.91	6.67	—
5	2.25	1.00	12.08	2.19	4.90	8.33	—
6	2.25	1.00	14.50	2.62	5.88	10.00	40.00
7	2.25	1.00	16.92	3.06	6.85	11.67	40.00
8	2.25	1.00	19.33	3.50	7.84	13.33	40.00
9	2.25	1.00	21.75	3.94	8.81	15.00	40.00
10	2.25	1.00	24.17	4.38	9.78	16.67	40.00
11	2.25	1.00	26.58	4.81	10.78	18.33	40.00
12 or more	2.25	1.00	29.00	5.25	11.75	20.00	40.00

STUDENT FEES INCLUDE

1. The Student-to-Student (STS) Grant Program Fee provides funding of a student grant program. The fee is payable by undergraduate students only. Under-

graduate students who do not wish to participate in the program may seek a refund of the fee by contacting the Office of Admissions and Records within ten days of the date of payment of fees.

2. The Students' Attorney Fee provides funding for a legal service program. The fee is payable by all students. Students who do not wish to participate in the program may seek a refund by contacting the Office of Admissions and Records within ten days of the date of payment of fees.

3. The Student Center Fee provides funding for operation of the Student Center.

4. The Student Activity Fee provides funding for student organizations and activities on campus.

5. The Student Welfare and Recreation Fund (SWRF) Fee provides funding for construction and operation of physical facilities for student recreation and intramural programs.

6. The Athletic Fund Fee provides partial funding of the University's intercollegiate programs for men and women.

7. The Student Medical Benefit Fee is assessed to students enrolling for 6 or more semester hours and provides funding for a comprehensive student health program including emergency service; hospitalization; specialty, primary, intermediate, or infirmary care; and prevention program. A student who pays this fee is entitled to full medical benefits at Health Service. One who has comparable coverage may seek a refund within the first three weeks of each semester by contacting the administrative director of Health Service. Similarly, a refund is authorized for those students precluded from use of the student health program by unusual or extreme geographic considerations.

ADDITIONAL FEE INFORMATION

1. Students should refer to the Schedule of Classes for more specific fee information.

2. Graduate, medical, and law students are not required to pay the student-to-student grant program fee so their student fees will be \$2.25 less than the amount listed in the appropriate column above.

3. Permanent full-time or permanent part-time employees may be eligible for waiver of tuition and waiver of a portion of the student fees. Approval by the department head and the director of the Personnel Office must be given prior to enrolling for courses. Employees who are approved are required to pay tuition as listed in the table above and the Student Center fee.

5. In addition to the above fees, there is a graduation fee. For further information contact the Office of Admissions and Records.

6. Students holding valid state scholarships are exempt from the above tuition and fees to the extent provided by the terms of the specific scholarship held. An Illinois State Scholarship may cover all tuition and student fees or the scholarship may be a partial award. Also, honorary scholarships, which have no monetary value, may be awarded. An Illinois State Teachers Education Scholarship, Illinois Military Scholarship, or Illinois General Assembly Scholarship exempts the student from paying the tuition, the student activity fee, and the graduation fee. An Illinois Scholarship for Dependents of Prisoners of War or an Illinois Bilingual Scholarship exempts the student from paying tuition and all mandatory non-refundable fees.

7. Adult education course fees are computed on the basis of approximately sixty cents per contact hour.

8. Other charges which students may incur are those for departmental field trips, library fines, and excess breakage. Also, students taking a course involving use of materials, as distinct from equipment, will ordinarily pay for such materials.

9. Students registering for courses on an audit basis pay the same tuition and fees as though they were registering for the courses for credit.

10. Out-of-state students will find the official University regulations governing

determination of residency status for assessment of tuition later in Chapter 2.

11. Medical students are not required to pay Student-to-Student Grant Program Fee. In addition, medical students in Springfield are not required to pay Student Center, Athletic Fee, or the Student Welfare and Recreation Trust Fund Fee.

12. Students enrolled in public service courses pay only tuition and \$3.00 per hour fee. The fees are divided equally between Student Center and Student Medical Benefit Fees.

PAYMENT AND REFUNDING OF TUITION AND FEES

Tuition and fees are payable each semester during the academic year. Students who register in advance receive a tuition and fee statement and may pay either by mail or in person at the Bursar's Office, by the deadline date, in accordance with instructions accompanying the tuition and fee statement. Otherwise their advance registration is cancelled and they must register again later. Students who register at the start of a semester must pay tuition and fees at the time of registration.

Students who process a program change which places them in a different tuition and fee category than the one for which they originally registered will be billed additional tuition and fees when appropriate. If the change places them in a smaller tuition and fee category and if they have processed the program change within the first three weeks of the semester, they should make application for a refund at the Office of Admissions and Records. Mail requests for a refund will be honored.

A refund of tuition and fees will be made to students who officially withdraw from school by the specific withdrawal deadlines.

DEADLINES FOR WITHDRAWING FROM SCHOOL TO RECEIVE A REFUND

If Classes Meet for	Deadline for Withdrawal to receive Refund
13-16 weeks	3rd week
9-12 weeks	2nd week
7 or 8 weeks	2nd week
4-6 weeks	1st week
2 or 3 weeks	1st week
less than 2 weeks	2nd day

If the students withdraw in person, they will receive an immediate cash refund. If they withdraw by mail, they will receive a refund check in approximately four weeks after the withdrawal has been received by the Office of Admissions and Records. No refunding of tuition and fees is made for a withdrawal occurring after the deadlines, except as described in the next paragraph.

Special consideration is extended to individuals who leave school for extended military service (6 months or longer). Students will be refunded full tuition and fees paid if they enter military service during the first five weeks of school. If students withdraw during the sixth through tenth weeks of school, they will be refunded half of the paid tuition and fees, and they will receive one-half credit without letter grades for the courses in which they were receiving a passing grade at the time of withdrawal. When the withdrawal occurs after the tenth week, students will receive no refund, but will receive both grades and credit hours for the courses in which they are passing. In all instances, a copy of the military orders or a letter from the commanding officer is required for verification of impending military service. To be eligible for these benefits students must remain in school to within ten days of their military reporting date.

DEFERMENT OF TUITION AND FEES

Special fee deferments are available to students who (1) can demonstrate financial need, (2) meet minimal requirements, and (3) can provide written verification of the ability to pay. Information on fee deferments is publicized each term in the

Student Relations Office, the Office of Admissions and Records, Bursar's Office, Student Work and Financial Assistance Office, and the *Daily Egyptian*. Guidelines may vary from term to term and year to year and students are advised to seek out the accurate information rather than assume they qualify for deferment.

Students applying for a fee deferment must complete registration to the point of receipt of a fee statement. Applicants must be full-time students as defined by the Office of Admissions and Records and the fee statement must bear a minimum balance of \$65. The fee statement and written verification from the source of funds to be used to pay tuition and fees must be presented to the Student Relations Office to obtain an application. Applications are processed one week prior to the first week of classes. Recipients of fee deferments will not be allowed to register for any future semester until payment is made. Additional information on deferments is available in the Student Relations Office. Phone or mail requests for deferments will not be accepted.

If approval for a deferment is granted, tuition and fees will be placed on a special fee code for the term and the student will be obligated to pay by the approved deferred date. Failure to pay deferred fees will result in withholding of permission to register for succeeding terms and withholding of transcripts.

Student Work and Financial Assistance

A variety of financial aid programs including scholarships, grants, loans, and part-time employment are administered and coordinated by the Office of Student Work and Financial Assistance.

Major Types of Assistance

Scholarships. All interested Illinois resident undergraduate students should apply for the Illinois State Scholarship Commission (ISSC) Monetary Award. This award could provide tuition and fees and is based upon financial need.

Grants. Every interested undergraduate student should apply for the Basic Educational Opportunity Grant. This award is based upon financial need and funds are to be used for any educational expense. The Supplemental Educational Opportunity Grant is available for undergraduate students displaying exceptional financial need. A current needs analysis form must be on file.

Loans. The loan programs include the National Direct Student Loan (NDSL), the Illinois Guaranteed Loan (IGLP), and the Federally-Insured Student Loan (FISL).

Part-time Employment. Work consists of an on-campus work program in which more than six thousand students work each year in one of more than two hundred student worker classifications, as well as more than three thousand students employed in off-campus jobs.

Other. Veterans, Social Security, Railroad Retirement, and Civil Service Retirement benefits are also available to those who qualify.

It is necessary that the student and parents complete and submit an American College Testing Program Family Financial Statement (ACT/FFS) each year in order for that student to be considered for most types of financial assistance. This needs analysis is used both as the main criterion for selecting recipients for certain awards, and for determining the types and amounts of awards comprising each student's financial aid package.

Federal Law. Under mandate from the legislative Amendments of 1976 to the Higher Education Act of 1965, Southern Illinois University at Carbondale has

instituted a policy regarding the academic requirements for good standing and the maintenance of the satisfactory progress of a student in his course of study for the purpose of eligibility for financial aid awards. The details for this policy, which will include procedures for the review and reestablishment of a student's eligibility are not available for publication at the time of this printing.

Deadline. Students wishing primary consideration for financial aid must submit all applications by May 1, 1978.

A Student Work and Financial Assistance brochure has been prepared which summarizes the various financial aid programs available, including eligibility requirements, amount of assistance, and where to apply. This brochure, as well as individual counseling with staff members, is available from the Office of Student Work and Financial Assistance, Woody Hall, 3rd floor — B Wing, Southern Illinois University at Carbondale, Carbondale, Illinois. The telephone number is area 618 453-4334.

Division of Continuing Education

The Division of Continuing Education is responsible for expanding the University's educational mission beyond regular course offerings and campus boundaries. Through off-campus credit programs, adult education non-credit courses and conferences, military programs, the Labor Institute and the Touch of Nature Environmental Center, the division offers the University's resources to groups and areas in need of a particular educational program.

Off-Campus Credit

Faculty, materials, and course work for off-campus credit programs are of the same quality as those offered in courses that are part of the regular University curriculum. Off-campus courses are scheduled in the areas served by Southern Illinois University at Carbondale when a community or group demonstrates a need or desire for a course. Graduate programs in agriculture, education, engineering, and rehabilitation administration, as well as undergraduate programs in university studies, industrial technology, occupational education and bachelor's degree programs in the School of Technical Careers are provided at approved sites.

The University accepts a maximum of 30 semester hours of credit earned through off-campus and correspondence programs toward a bachelor's degree. Southern Illinois University at Carbondale does not operate a correspondence program. Correspondence work is accepted when completed at institutions that are regionally accredited if the grade is of C quality or better.

The University offers off-campus courses whenever (1) it is apparent that there is a need and potential enrollment to justify scheduling; (2) it is possible to obtain a faculty member to instruct the course; and (3) adequate laboratory and library facilities are available.

Persons may enroll for off-campus work on an audit basis provided facilities are available. They must receive the instructor's permission to do so, and are required to pay the same tuition fee as though they were registering for credit.

In addition, the division's popular travel-study program offers a number of credit courses at national and international locations where students can learn directly about the area being studied and can have access to facilities and materials unavailable elsewhere. Past travel-study courses have temporarily transferred the classroom from the Carbondale campus to Denmark, Mexico, Western Europe, the Pacific Ocean, and the Rocky Mountains.

Adult Education Conference and Short Courses

Adult education non-credit courses feature instruction by University faculty, as well as carefully selected specialists from business, industry, and other professions.

Courses in a wide range of vocational, technical, and general education fields are designed to provide a spectrum of educational opportunities for adults in Southern Illinois.

Conferences, workshops, seminars, and symposia in virtually every field are conducted either on or off campus, at the most convenient site for participants. Traditionally, most conferences have been for local groups, but in recent years there has been a substantial growth in the number of state and national conferences hosted by the University. From original brainstorming sessions to completion of the conference, workshop, seminar, or symposia, the division is equipped with the staff, expertise, and materials to conduct a wide range of activities.

The Community Listener's Permit Program, a special non-credit program, enables people in the community to sit in on courses which are offered as part of the regular University credit curriculum. Almost all undergraduate University courses are open to participants in the Community Listener's Permit Program.

Office of Military Programs

The Office of Military Programs is a coordinating office working with the College of Education, the School of Technical Careers, and the School of Engineering and Technology which offer the final two years of degree programs at military bases. Principal functions are to establish uniform policies regarding registration, program changes, billings to and collections from students, processing of veterans benefits documents, changes in enrollments, and refunds. The office serves as the principal point of contact and represents the University with external agencies in matters pertaining to educational programs at military bases. For additional information refer to the academic unit information in chapters 3 and 4.

Labor Institute

The Labor Institute's objectives are: (1) to facilitate regular University instruction in the disciplines related to the labor field; (2) to encourage research in the labor area; and (3) to organize and promote programs of education in the labor field designed to serve workers, employers and the public.

Touch of Nature Environmental Center

The 6,500 acre Touch of Nature Environmental Center provides the opportunity for outdoor learning experiences through programs designed for all age groups. The programs include underway, a challenge camping experience, the handicapped programs for children and adults, the trailriding program, and the environmental workshops for high school students.

Facilities are available for use by school and other groups for educational programs and conferences. The center is located ten miles southeast of Carbondale on Little Grassy Lake, adjacent to Giant City State Park.

International Education and International Student and Faculty Affairs

The International Student and Faculty Affairs section of the Office of International Education is a service unit whose mission is to bring all of the resources of Southern Illinois University at Carbondale and of the community to bear on the education of foreign students and to facilitate the exchange of ideas and understanding between American and foreign students. The program also provides educative, legal/contractual, and supportive services to foreign students. The International Student and Faculty Affairs section maintains relationships with foundations, government agencies, and other organizations interested in sponsoring international student exchange programs and administers the senior Fulbright-Hays program.

Aerospace Studies — Air Force ROTC

Aerospace Studies offers a two-year and a four-year program which are open to both men and women, leading to a commission in the United States Air Force. The four-year program is divided into the General Military Course (GMC), covering the freshman and sophomore years, and the Professional Officer Course (POC), covering the last two years. Students qualify to enter the two-year program at the POC level by attending a six-week field training course during the preceding summer.

The GMC prepares students for the POC and provides them with an education for space age citizenship of long range value whether they remain civilians or become officers in the U.S. Air Force. The courses of the POC are designed to provide the basic knowledge, understandings, and experiences which are required to become an effective junior officer in the modern air force. The student learns about the wide range of USAF career specialties open and has an opportunity to request duty in those fields where qualified. Those qualified as pilots, who do not already fly, receive 25 hours of flying training plus ground school instruction during their final year before graduation.

Freshman and sophomore students enrolled in the four-year program are eligible to compete for full scholarships for their remaining years at the University. In addition to full tuition and fees, the scholarship provides a monthly tax-free subsistence allowance. Also, two-year AFROTC and State of Illinois (Senate Bill 381) scholarships are available on a competitive basis.

In addition to the courses offered for academic credit, Aerospace Studies sponsors related extracurricular activities. The Aerospace Club is open to all members of the student body. The Arnold Air Society, a national honorary service organization, is open to selected AFROTC cadets. Membership in the Angel Flight, an auxiliary of the Arnold Air Society, is open to selected undergraduate women. Angel Flight assists with community and campus service-oriented projects. The wives of married cadets are eligible for the Cadet Ladies Club which prepares wives and fiancées for participation in military family life.

Further information may be obtained from Aerospace Studies, 807 South University Avenue.

Admission Policies, Requirements, Procedures

In order to attend classes at Southern Illinois University at Carbondale, students must gain official admission to the University and must complete the enrollment process, which includes advisement, registration, and payment of fees.

Applications for admission to the University are accepted anytime during the calendar year but should be submitted at least thirty days prior to the beginning of classes.

All beginning freshmen applicants, except those who are twenty-one years of age or older, must submit entrance examination scores. Transfer students are also required to submit entrance examination scores if they are less than twenty-one years of age and have fewer than twenty-six semester hours (thirty-nine quarter hours) of acceptable transfer work. Currently the ACT (American College Test) is the required entrance examination.

Admission of Freshmen

To be eligible for admission, applicants must be graduates of recognized high schools. Graduates of non-recognized high schools may be admitted to the University by demonstrating high potential for success on an entrance examination, or must have passed the General Educational Development Test. Persons who have not completed high school may also qualify for admission by completing the GED test provided they meet the requirements to write this examination.

All admissions granted students while in high school are subject to the completion of high school work, the graduation from high school, and the maintenance of rank upon which the admission was made.

Students entering the University as freshmen are admitted in the schools or colleges within the University that offer the academic programs they indicate they plan to pursue. Students who are undecided as to the course of study they want to follow are admitted to the General Academic Programs unit in pre-major advisement or to selected other units with an undecided major.

Students who are admitted as beginning freshmen but enroll at another college or university prior to their enrollment at Southern Illinois University at Carbondale will automatically void their admission as beginning freshmen. It will be necessary for the student whose admission is voided to reapply for admission and be considered for admission accordingly.

While beginning freshmen are considered for admission on the basis of a combination of class rank and test scores, it is strongly recommended that students will have completed in high school a comprehensive academic program. Recent studies have indicated a number of deficiencies among students in such basic skills as reading, writing, and mathematics. Therefore, students should attempt to complete as many courses as possible in English, mathematics, science, etc., before entering college.

ADMISSION OF FRESHMEN TO BACCALAUREATE PROGRAMS

High school graduates who rank in the upper half of their graduating classes based upon class rank and who have an entrance examination score above the thirty-third percentile are eligible for admission to any semester. High school graduates who have an entrance examination score at the fiftieth percentile or higher are eligible for admission to any semester regardless of class rank. Students who qualify for admission to any semester will be considered for admission after completion of their junior year in high school.

Applicants who do not qualify for admission by entrance examination score or by class rank but who demonstrate potential for academic success may be admitted for fall semester through the Special Admissions Programs. These students are admitted to the University in good scholastic standing and are required to participate in academic assistance activities including tutorials in basic skills and courses designed to teach study skills. All applicants who do not meet admission requirements will be considered for admission through the Special Admissions Programs.

Applicants who do not meet the admissions requirements stated above are urged to submit applications for admission to the University. These applicants will be considered for admission to the Special Admissions Programs and, if admitted to these programs, will be admitted in good standing and will receive special assistance to enhance their opportunities for success in their academic programs.

High school graduates who rank above the thirty-third percentile in class rank or by entrance examination scores are admissible for the spring semester on a conditional basis. The conditions are that the student must enroll for a minimum of twelve semester hours and complete at least ten semester hours of graded work to continue and the student is admitted on scholastic probation and must meet the University's scholastic requirements for probationary students as specified in the undergraduate catalog. Current scholastic requirements for probationary students require these students to maintain a *C* average. Students who fail to meet either condition may not continue in attendance subsequent semesters unless approved for readmission by the dean of the school or college. Ordinarily, the student will not be considered for readmission for at least one academic year.

Students who have been admitted or qualify to be admitted on condition may earn transfer credit at another college or university prior to their spring semester matriculation. However, it is necessary for students to earn a *C* average or above for any transfer work completed in order to be eligible for enrollment. Students who present twenty-six semester hours or more of transfer work will be considered for admission on the basis of the regular baccalaureate transfer admission requirements.

Students who are less than twenty-one years of age and have completed satisfactorily the General Educational Development Test can qualify for admission by achieving an entrance examination score above the thirty-third percentile.

ADMISSION OF FRESHMEN TO ASSOCIATE DEGREE PROGRAMS

High school graduates who rank in the upper two-thirds of their graduating classes based upon class rank or by score on the University entrance examinations are eligible for admission to any semester. Students who have passed the General Educational Development Test are also eligible for admission for any semester. Graduates who rank in the lower one-third of their graduating classes are admissible to the spring semester on a conditional basis. The conditions are that the student must enroll for a minimum of twelve semester hours and complete at least ten semester hours of graded work to continue and the student is admitted on scholastic probation and must meet the University's scholastic requirements for a probationary student as specified in the undergraduate catalog. Current scholastic requirements for probationary students require these students to maintain a *C* average. Students who fail to meet either condition may not continue in attendance subsequent semesters unless approved for readmission by the dean of the School of

Technical Careers. Ordinarily, the student will not be considered for readmission for at least one academic year.

Students who did not meet the University baccalaureate admission requirements to enter as freshmen from high school during the regular academic year and elect to enter an associate degree program in the School of Technical Careers will not be considered for admission to a four-year program until they have completed 26 semester hours and have an overall *C* average.

Because a number of courses are offered on a sequential basis in the School of Technical Careers, some programs begin only in the fall. Applicants should review the admission documents to determine when selected programs will allow students to enter the School of Technical Careers.

Admission of Transfer Students

A student who has attended another college, university, or postsecondary institution is required to submit an official transcript from each institution attended. All transcripts become the official property of Southern Illinois University at Carbondale and will not be returned nor issued to another institution.

Even though a student has attended another college or university, the student is required to have graduated from a recognized high school or completed satisfactorily the General Educational Development Test.

A student who has completed any college work will be required to submit an official transcript of that work for admission purposes. Students who have fewer than twenty-six semester hours of transfer credit and do not meet beginning freshmen baccalaureate requirements may be considered for admission on a conditional basis.

In the event transfer students' grade point averages cannot be determined, their admission may require, in addition to a review of their college performance, standardized examinations and secondary school records.

Transfer students who have been suspended for any reason other than academic failure must be cleared by the Student Relations Office before admission will be granted by the director of admissions.

Transfer students will be admitted directly to the school or college in which their major fields of study are offered. Students who are undecided about their major fields of study will be admitted to the General Academic Programs unit in pre-major advisement or to selected other units with an undecided major.

Transfer students from non-baccalaureate programs will ordinarily be placed in the upper division unit in which they plan to continue their studies. Students admitted to associate degree programs of the School of Technical Careers will be enrolled in that academic unit.

Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Students who have completed less than one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who are enrolled in a collegiate program for the first time and wish to transfer upon completion of their first term may do so if they meet the University's admission requirements for beginning freshmen. Admission may also be granted one year in advance for selected programs to students who are in their first term of a collegiate program provided they qualify for admission as beginning freshmen. Admission granted to a student on partial or incomplete records is granted with the condition that the student will have an overall *C* average and be eligible to continue at the last school attended at the time of matriculation. Students whose final transcripts indicate a grade point average or scholastic standing less than that required for unconditional admission will have their initial admission withdrawn.

ADMISSION OF TRANSFER STUDENTS TO BACCALAUREATE PROGRAMS

Students who have an overall *C* average, 2.0 on a 4.0 scale (all institutions), and are

eligible to continue their enrollment at the last institution of attendance will be eligible for admission to any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student for unconditional acceptance.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Those students who submit evidence of scholastic aptitude can be considered for admission on a probationary basis. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more years, (2) military experience, (3) work experience, and (4) previous academic performance.

Students who have graduated with an associate degree in a baccalaureate-oriented program from a two-year institution may enter Southern Illinois University at Carbondale in good academic standing any semester provided they have not taken additional college-parallel work since their graduation. If they have, their admission will be considered on the basis of their conformity to the University's regular transfer admission standards.

Students applying for admission to the University to pursue baccalaureate programs from programs which are not so oriented will be considered for admission as follows: 1. A student who has been enrolled in a regionally accredited institution in an educational program not so oriented to the baccalaureate program will be considered for admission on the basis of conformity to the University's normal transfer admission standards. A "regionally accredited institution" for the purpose is one listed without condition in the American Association of Collegiate Registrars and Admissions Officers' *Report of Credit Given by Educational Institutions* (A and B schools) or an institution which is listed in the American Council on Education's *Accredited Institutions of Higher Education* as being accredited by one of the regional accrediting associations. 2. A student who has completed a two-year or equivalent program with a C average in an institution which has not been accredited by a regional accrediting association will be admitted if the institution is (a) one falling within the normal purview of a regional accrediting association which has not yet been evaluated for accreditation, or (b) one recognized by NATTS, AMA, ECPD, or similar accrediting bodies recognized by the National Commission on Accrediting or the United States Office of Education. Students who have not completed two-year or equivalent programs or who have less than a C average will be considered for admission as entering freshmen.

ADMISSION OF TRANSFER STUDENTS TO ASSOCIATE DEGREE PROGRAMS

Students who have an overall C average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended are eligible to be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as transfer students for unconditional acceptance.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Those students who submit evidence of scholastic aptitude can be considered for admission on scholastic probation. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more

years, (2) military experience, (3) work experience, or (4) previous academic performance.

A student who is admitted to an associate degree program as a transfer student and then decides at a later date to enter a four-year program must meet the University's baccalaureate admission requirements at the time of transfer.

New students may be admitted only for the fall semester to select majors in the School of Technical Careers. Please consult the admission application guide to determine when new students can be admitted to two-year programs in the School of Technical Careers.

TRANSFER CREDIT

Transfer credit for students admitted to baccalaureate programs from baccalaureate programs is evaluated for acceptance toward University and General Studies requirements by the Office of Admissions and Records after the admission decision has been made. The evaluation toward satisfaction of specific curriculum requirements is done by the department or agency directing the specific curriculum. General principles governing the acceptance of transfer work are as follows.

1. Credit transferred on or after June 1, 1967, from an accredited two-year institution is limited only by the provision that students must earn at Southern Illinois University at Carbondale or at any other approved four-year institution at least 60 semester hours required for a degree, except that students must meet the residence requirements for a degree from the University. These requirements can be found elsewhere in this catalog.

2. Completion of an associate degree based on baccalaureate-oriented sequences transferred from an accredited two-year institution is considered to provide the student with (a) junior standing and (b) completion of general education requirements.

3. Transfer credit evaluation from educational programs not baccalaureate oriented and to be applied to baccalaureate programs will be subject to the conditions listed above and to further evaluation by the major department or academic unit. The decision will be made depending upon the program the student has completed and the program entered at Southern Illinois University at Carbondale. Applicable credit will be accepted without condition. Unless a student has been admitted as a transfer student as explained under Admission of Transfer Students to Baccalaureate Programs no credit will be considered for transfer.

Further information on the application of transfer work toward satisfying General Studies and graduation requirements may be found elsewhere in this catalog.

Transfer credit for students admitted to associate degree programs in the School of Technical Careers is evaluated by the chairman in charge of the program the student plans to follow at the school.

Admission of International Students

In general, international students must meet the same academic standards for admission as those required of native students. As there is considerable variation between educational systems throughout the world, precise comparative standards are not always available. Therefore, international students are selected upon the basis of their former academic work, English proficiency, and evidence of adequate financial resources.

In addition to submitting copies of secondary school records and, when applicable, college transcripts, international students must also submit scores from TOEFL examination (Test of English as a Foreign Language). TOEFL scores are required of all international students who (1) have completed their secondary education in a country where English is not the native language, (2) have completed fewer than two years study in a United States high school, (3) have completed fewer than two years (60 semester hours) of collegiate training in an

accredited United States college or university. Students who have completed their secondary education in a country where English is the native language are required to submit scores from either the American College Test or the Scholastic Aptitude Examination.

Students who have acquired immigrant status are also required to demonstrate English proficiency. English proficiency can be demonstrated by successful completion of the TOEFL examination or a special English examination administered by the Center for English as a Second Language. Immigrants who have completed at least two years of study in a United States high school, have earned sixty semester hours in a United States college or university, or have completed their secondary education in a country in which English is the native language are not required to submit TOEFL scores or write a special English examination.

International students whose secondary school and college records are acceptable for admission purposes must also receive high enough TOEFL scores for unconditional admission. Students with a TOEFL score of 525 or higher will be granted unconditional admission. Applicants whose TOEFL score is between 475 and 524 will be admitted contingent upon completion of an English re-test administered by the Center for English as a Second Language. Students who fail to submit TOEFL scores, or who do not submit acceptable TOEFL scores, will be required to attend courses at the Center for English as a Second Language.

International students interested in making application to Southern Illinois University at Carbondale should address their inquiries to the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Admission of Former Students

Former students who have attended another institution since their previous enrollment at Southern Illinois University at Carbondale must submit an official transcript from that institution before they can be considered for re-admission. In addition, a student who has a financial obligation to the University must clear this hold before being considered for re-admission. Students who were suspended for scholastic or disciplinary reasons during their previous enrollment at the University must be approved for re-admission by the appropriate academic or student services dean before they can be re-admitted to the University.

It is advisable for former students to initiate the re-admission process with the Office of Admissions and Records early so that all inquiries may be answered and the applicants can find time to complete any special requirements that may be imposed upon them. (See Scholastic Probation and Suspension System elsewhere in this catalog for further information.)

Admission of Special Categories of Students

Several types of students are given special consideration when seeking admission to the University. These are described below:

ADMISSION OF VETERANS

Veterans seeking admission or re-admission to the University are admitted in good standing regardless of their previous academic record provided that either (a) no additional education has been attempted or (b) such additional education has been of C quality or better. Prior academic work of an admitted reentering veteran is counted together with all subsequent work after admission. Veterans are required to submit all required admission credentials before their applications can be processed. This includes high school transcripts or GED scores and official transcripts from each college or university previously attended.

EARLY ADMISSION POLICY FOR FRESHMEN

Exceptionally capable high school students who (a) have completed their junior

year, (b) are recommended by their high school principals, and (c) are approved by the director of admissions of the University will be permitted to enroll for University courses to be taken concurrently with their senior year of high school work. Such students will also be permitted to enroll for University courses offered during the summer session between their junior and senior years of high school, without being concurrently enrolled in the secondary school. Enrollment during the summer for students participating in this early admission program is limited to eight semester hours.

It is expected that high school principals will judge each case on its individual merits, and that in making their selections and recommendations they will consider such things as:

- a. the rank held by the students in their high school classes;
- b. the results of any standardized test which the students may have taken;
- c. the opinion of the students' teachers regarding their aptitude for college level work; and
- d. the opinion of the students' teachers regarding the students' having attained sufficient maturity to adjust to the social and emotional interactions involved.

ADMISSION OF ADULTS AS UNCLASSIFIED STUDENTS

Adults who have graduated from high school or who have passed the GED tests can be considered for admission as unclassified students. Students in this special category are non-degree students and are not required to submit all records normally required for admission to degree programs.

Applying for Admission

High school students are urged to initiate the admission application process during the seventh semester in high school. Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Transfer students who have not completed one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who delay their admission processing until near the start of the semester which they wish to enter may find that they are unable to do so because all necessary documents required before the admission decision will be made have not been received. It is particularly important for transfer students to initiate the admission application process well before the starting date of the semester. Otherwise, delay in getting started, undesirable class schedules, or inability to attend the desired semester may result. Documents required in the admission process are listed below.

The admission process is initiated by writing the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, indicating a desire to apply and requesting admission materials. The materials that are sent include the application and related forms that need to be completed along with procedural instructions. Information is also included relative to housing and financial assistance.

DOCUMENTS REQUIRED FOR ADMISSION

Among the items required by the University before an admission decision is made are the following:

1. The completed application form from the students.
2. Transcripts of previous educational experience. For high school students the request is for two copies of the high school transcript or a copy of the General Educational Development Test scores. For transfer students the request is for an official transcript from each institution previously attended sent directly to this University from the previously attended school. In addition, transfer students presenting fewer than 26 semester hours (39 quarter hours) of completed work

must provide to the University a copy of their high school transcript or General Educational Development Test scores.

3. University entrance examination scores. All students who are less than twenty-one years of age applying for admission directly from high school and all transfer students who have completed fewer than 26 semester hours (39 quarter hours) must have their official ACT scores sent to the University from the American College Testing Program, Box 451, Iowa City, Iowa 52240.

Applications for housing and financial assistance are separate from the admission process and directions relating thereto are contained in the brochures on these subjects which the students receive as part of the admissions process.

Orientation, Advisement, Registration

Through a carefully designed system of orientation, academic advisement, and registration the University attempts to assure entering students an efficient and effective introduction to the University prior to the time they start class attendance. A more extensive program is provided for those students entering during the fall semester while abbreviated activities are in operation for the other semesters.

For many years the University has used an advance registration system through which all continuing students and most new students are expected to be academically advised and registered for a semester before its actual start.

During July and August several weeks are set aside for new freshman and transfer student orientation, advisement, and registration. Students are invited to have their parents accompany them so that they too may obtain a better understanding of the University and its operation than might otherwise be the case. The orientation program on these days is of necessity an introductory type in which questions about admission, housing, financial assistance, etc., can be answered. Later, at the start of the fall semester new students participate in three days of orientation activities during which time they receive a well rounded introduction to university life.

Starting in May and extending through June the University contacts new students admitted to arrange appointment dates for them to come to the campus. Through this process only the number of students that can be efficiently handled are involved each day. Students who cannot come to the campus during the summer or who delay applying for admission beyond the advance registration period may register at the start of the fall semester but are required to come to campus a few days before those who have registered during the summer period.

Similar procedures are followed at the start of the other semesters. Admitted students are kept informed of orientation, advisement, registration procedures, and the times when they occur by the Office of Admissions and Records in cooperation with the Student Activities Office. The latter office is the University's administrative agency that assists the large number of volunteer students who actually operate the New Student Days activities at the start of each semester.

Academic Advisement

Academic advisement is administered by the academic units. Each unit employs a selected group of trained advisers devoting part-time directly to this function. They operate under the supervision of a chief adviser who is responsible to the dean of the academic unit.

The University accepts the importance of the academic advisement function. Insistence on receipt of transcripts and ACT scores prior to admission serves not only to determine admission but later provides suitable educational information to the advisers upon which decisions can be made relative to the proper courses to advise the students to take. On the basis of this information the advisers can make

intelligent decisions relative to students who should receive advanced standing in courses or who should be urged to take proficiency examinations in courses about which they appear to be already well informed.

Registration

Registration for any session of the University is contingent upon being eligible for registration. Thus advance registrations, including the payment of tuition and fees, are considered to be invalid if the students are later declared to be ineligible to register due to scholastic reasons. Students may also be considered ineligible to register because of financial or disciplinary reasons if this is certified to the Office of Admissions and Records by the appropriate University office.

Detailed information about the dates and procedures for advisement and registration appears in each semester’s Schedule of Classes, which is available from the Office of Admissions and Records.

Students should be familiar with the following general points about registration.

1. Students initiate registration with the advisement center of their colleges or schools.
2. The course request forms and program change forms must be processed through the Registration Center, Office of Admissions and Records.
3. Mere attendance does not constitute registration in a class, nor will attendance in a class for which a student is not registered be a basis for asking that a program change be approved permitting registration in that class. Students should complete the registration process before classes begin.
4. Enrollment changes to classes can only be made through the processing of an official program change form.
5. Tuition and fees are payable in advance and no student shall be enrolled in any educational unit until tuition and fees have been paid or officially deferred.
6. Students may not drop a course merely by stopping attendance. (See the Withdrawal from Courses and from the University section of this chapter.)
7. There is a terminal date near the end of each semester or session after which program changes or withdrawal from the University are not permitted except for unusual circumstances. This date is usually one week before final examinations start. The specific date appears in each appropriate Schedule of Classes.

WITHDRAWAL FROM COURSES AND FROM THE UNIVERSITY

Students who officially register for a session may not withdraw merely by the stopping of attendance. They need to process an official withdrawal form. Otherwise, grades of ABS will be given.

Outlined below are the procedures to be followed by students when withdrawing from courses and when withdrawing from the University (all courses for which registered.)

DEADLINES FOR WITHDRAWING FROM SCHOOL OR FROM A COURSE

If Classes Meet for	Deadline for Withdrawal to Receive Refund	Deadline to Withdraw Without a Grade
13-16 weeks	3rd week	5th week
9-12 weeks	2nd week	4th week
7 or 8 weeks	2nd week	3rd week
4-6 weeks	1st week	2nd week
2 or 3 weeks	1st week	1st week
less than 2 weeks	2nd day	2nd day

Course Withdrawals. Students officially withdraw from courses through the program change process. This process starts with the academic adviser and is completed at the Registration Center. Official course withdrawals during the first five weeks in a semester result in no letter grade being assigned. Withdrawal deadlines

for shorter sessions are correspondingly shorter. Thereafter, a *WP* (passing) or *WE* (failing) grade is assigned in keeping with the progress being made. For graduate students only, *W* grades may be given when no basis for evaluation has been established. Merely stopping attendance in courses without the processing of a program change will result in *ABS* grades being assigned. An *ABS* counts the same as an *E* or *WE* for scholastic purposes.

Students who are prevented, for reasons beyond their control, from processing program changes during the first five weeks of a semester and who later, during the semester, seek to do so with the request to have the program change backdated are referred to their academic deans for approval or disapproval.

Withdrawal From the University. Students who find it necessary to withdraw from the University after school has started and who are on campus should contact the Student Relations Office in person to initiate the withdrawal process. If they are unable to come to campus, they may write the Student Relations Office asking that it process a withdrawal.

Students who advance register, and pay their tuition and fees, and who then find they cannot attend school must process an official withdrawal the same as do those who withdraw after school starts. In this case the process is the same as outlined in the paragraph above. Students who advance register but do not clear tuition and fees by the announced deadline date have their registrations cancelled by the University.

Students who seek to have a withdrawal from the University backdated from the date of actual processing are referred to the Student Relations Office for review and approval or disapproval prior to processing, provided grades have not yet been given.

Students seeking to withdraw from sessions already completed are referred to their academic deans when the situation involves a possible change of grade, whether one course or all courses are involved. The deans forward their recommendations via letter to the Office of Admissions and Records. The deans specify the effective date of withdrawal which then serves as a basis for grade changes or other purposes involved.

Academic deans may refer students to the Student Relations Office for professional evaluation when requests for grade change consideration involve matters that might be more appropriately considered by that office. The Student Relations Office provides the academic deans with professional evaluations of the cases. The deans inform the Student Relations Office of case dispositions.

Reasons for grade changes need to relate either to grade processing errors on the part of the University or the inability of students to perform some required step for reasons beyond their control.

Refer to the section Payment and Refunding of Tuition and Fees in this bulletin for information about the refunding of tuition and fees when withdrawing from the University. Refer to that section, also, relative to special considerations extended to students withdrawing from school for extended military service.

Grading, Scholastic Regulations, and Credit

Grading System

GRADE		GRADE POINTS
SYMBOL	DEFINITION	PER HOUR
A,	Excellent	4
B,	Good	3
C,	Satisfactory (this is intended to be the average grade)	2
D,	Poor, but passing	1

E,	Failure	0
P,	Pass. Hours earned apply toward graduation but do not affect student grade point average. Used only in Pass/Fail system. See Pass/Fail Grading System below.	
F,	Fail. Hours do not apply toward graduation and do not affect student grade point average. Used only in Pass/Fail system. See Pass/Fail Grading System below.	
W,	Authorized withdrawal with no basis for evaluation established. Work may not be completed. Approved grading symbol on graduate level only except for unusual circumstances where an academic unit dean recommends a change in grade from <i>ABS</i> to <i>W</i> for an undergraduate student.	
WP,	Authorized withdrawal with passing grade.	
WE,	Authorized withdrawal with failing grade. Counts same as an <i>E</i> for grade average purposes	0
WF,	Withdrawal with failing grade. Does not affect student's grade point average. Authorized grade only for students taking courses on Pass/Fail basis. See Pass/Fail Grading System below.	
INC,	Incomplete. Has permission of instructor to be completed. See explanation below regarding failure to complete.	
DEF,	Deferred. Used only for graduate courses of an individual, continuing nature such as thesis or research.	
PR,	Work in progress. See explanation below concerning failure to complete.	
ABS,	Unauthorized withdrawal. Counts same as an <i>E</i> for grade average purposes	0
S,	Satisfactory. Used for noncredit courses except spring quarter, 1970, when it was used to indicate satisfactory completion of credit courses as well. Effective fall, 1970, the <i>S</i> and <i>U</i> grades were used for the grading of thesis and dissertation credit on the graduate level and for certain other individually approved 500-level courses.	
U,	Unsatisfactory. Used for noncredit courses except spring quarter, 1970, when it was used for credit courses as well. (See also <i>S</i> grade)	
CR,	Credit. No letter grade assigned.	
AU,	Audit. No grade or credit earned.	

GRADING SYSTEM EXPLANATION

The grades of *A*, *B*, *C*, *D*, *E*, *WE*, and *ABS* are included in determining student grade point averages.

The *INC* grade is handled differently for undergraduate and graduate students. Graduate students should consult the Graduate Catalog for further information. For undergraduate students, an *INC* grade must be changed to a completed grade within a time period designated by the instructor but not to exceed one year from the close of the semester or session in which the course was taken. If the instructor does not submit a final grade, the *INC* will automatically be changed to an *E*, or an *F* for Pass/Fail courses, and the *E* will be computed in the grade point average. A student may not complete an *INC* by reregistering for the course and completing it within the year. Such an arrangement will not prevent the *INC* from being changed to an *E*. The only action which will prevent the *INC* from automatically being changed if the course has not been completed is for the student to be graduated within the year.

The *PR* grade may be assigned in certain individually approved courses when a student has been unable to complete the requirements by the end of the semester. The department must state how additional instruction will be provided for those students not making adequate progress, which may include registering for the

course a second time. A *PR* grade must be changed to a completed grade (by whatever technique the department has specified) within a time period to be designated by the instructor, not to exceed one year from the close of the semester in which the course was taken. If the grade is not changed within this period, it automatically becomes an *E*, or *F* in *P/F* courses, and is to be included in grade point computation, except in the case of *F*. A *PR* grade may be assigned to a student only once for any course.

Students registering for a course on an *audit* basis receive no letter grade and no credit. Auditor's registration cards must be marked accordingly, and they pay the same fees as though they were registering for credit. They are expected to attend regularly and to determine from the instructor the amount of work expected of them. If auditing students do not attend regularly, the instructor may determine that the students should not have the audited course placed on their record cards maintained in the Office of Admissions and Records. Students registering for a course for audit or credit may change to a credit status or vice versa through the official program change method during the first five weeks of a semester. After that time until the last day to make program changes, they will be permitted to change status with the approval of their academic dean.

Prior to the 1971 summer quarter, courses in which *D*'s or *E*'s were received could be repeated and the last grade was used in computing students' grade point averages. The repeating of a course does not remove the previous grade from students' official academic record cards. Effective with the 1971 summer quarter all grades earned carrying grade point values are considered when computing students' grade point averages, including each earned grade in a repeated course.

The official records of students' academic work are maintained in the Office of Admissions and Records.

CHANGING OF GRADES

Grades given at the end of a course are final and may not be changed by additional work or submitting additional materials. When work is completed for courses for which *INC* or *DEF* grades have been given, instructors notify the Office of Admissions and Records of that fact, along with the final grade to be given, by completing a Grade Change Card.

Any other changes of grade are to be made only because a processing error on the part of the University has occurred or because the student was unable to perform some step required for reasons beyond the control of the student. If a student feels that an incorrect grade has been assigned, the student should consult with the instructor of the course. If the instructor finds an incorrect grade has been submitted, the Grade Change Card should be completed by the instructor and must be approved by the departmental chairman and the academic dean. If the instructor has not made an error in recording the grade and the student wishes to make further appeal, most academic departments and each academic unit have established grade appeal procedures which must be followed, with final resolution of a grade question being made within the instructional unit. If the student is registered in an academic unit other than the one where the course was offered, the dean of the instructional unit may consult with the student's academic adviser or academic dean to obtain information which might have influence on the grade decision.

If a grade question has arisen because a student was unable to perform some step for reasons beyond the control of the student, the student should consult with the dean of the academic unit where registered. It is assumed that the academic dean will make no changes until every effort to obtain the approval of the instructor of the course or courses involved has been made. The student's dean may consult with the instructor, the department chairman, or the dean of the instructional unit to obtain information which might have influence on the grade decision. In very unusual circumstances where it appears that an *ABS* or *WE* has been unjustly

assigned, the dean may recommend, in writing, to the Office of Admissions and Records, a change of grade from the *ABS* or *WE* to *W*.

PASS/FAIL GRADING SYSTEM

The purpose of the Pass/Fail grading system is to encourage students to broaden their education by undertaking intellectual exploration in elective courses outside their area of specialization without having to engage in grade competition with students specializing in those courses.

The present Pass/Fail grading system for undergraduate students in good academic standing is governed by the conditions listed below:

1. There are two types of Pass/Fail courses: *mandatory* Pass/Fail courses, in which all students will receive either a *P* or an *F*; and *elective* Pass/Fail courses, in which students can elect either the traditional grading system or the Pass/Fail option.

2. No course is available under the Pass/Fail option without prior designation by the department or program in which the course is offered, and that current authorization procedures are followed.

3. The Pass/Fail grade is *mandatory* in courses in which, in the judgment of the department or program, the traditional grading system is inappropriate.

4. Pass/Fail grade is *mandatory* for all proficiency examinations.

5. The number of *elective* Pass/Fail credits is limited to sixteen semester hours overall, and to six semester hours in any General Studies area.

6. Formal permission of the major department or program is required before students are permitted to elect Pass/Fail for a major or minor requirement.

7. Students who earn an *A* or *B* in an *elective* Pass/Fail course are allowed to have their grades changed to an *A* or *B* by requesting this change at the Office of Admissions and Records before the end of the following semester.

8. Neither the *P* nor the *F* is counted in calculating the grade point average.

9. Instructors who teach *elective* Pass/Fail courses are not informed which students are taking these courses on a Pass/Fail basis.

10. A grade of *D* or higher is required for students to receive a *P*.

Students follow usual registration procedures when registering for courses on a Pass/Fail basis. They may change to or from pass/fail grading through the fifth week of a semester with an adviser's approval. After that time until the last day to make program changes, they will be permitted to change from pass/fail to regular grading with an adviser's approval or to pass/fail from regular grading with the student's academic dean's approval.

Scholastic Standing

The matter of scholastic standing is quite often of importance to students both while in school and later when they present a transcript of their educational record in support of their application for employment or additional schooling.

At the end of each semester or session of attendance a grade report is prepared for each student showing, in addition to the grades earned that semester or session, the scholastic standing and the grade point average for that semester or session and for the over-all record at Southern Illinois University at Carbondale. It is important that students understand the University's system for computing grade point averages and the various grade point average requirements.

Transferred grades are not to be used in determining students' calculated grade point average, except that transfer students who are admitted on probationary status will be required to earn a 2.0 average semester by semester until a total of 12 semester hours has been earned, before they can be removed from probation.

The significance of the above should be clearly understood by transfer students when studying the general baccalaureate degree requirements. A 2.00 (*C*) average is required for the work taken at this University.

In computing students' grade point averages all grades of *A*, *B*, *C*, *D*, *E*, *WE*, and

ABS are included in determining the number of *calculated* hours. Each hour of these grades (1 hour of *A* is worth 4 grade points) is given its numerical grade points, and the total number of calculated hours is then divided into the total number of grade points to determine the student's grade point average.

Effective with the 1971 summer quarter all earned grades carrying grade point values are considered when computing students' grade point averages, including each earned grade in a repeated course that is taken during the 1971 summer quarter and thereafter. When computing averages through 1971 spring quarter the policy contained in the 1970-71 Undergraduate Catalog is followed.

Scholastic Probation and Suspension System

Students are expected to make satisfactory progress toward a degree, certificate, or other approved objective. To ensure that students are making progress, their records are checked against the regulations below. Students in Good Standing are placed on Scholastic Probation when they have the following number of passed semester hours and more than the corresponding number of negative points:

<i>Passed Hours</i>	<i>Negative Points*</i>
Fewer than 56 semester hours	<i>More Than 12</i>
56 but fewer than 86 semester hours	<i>More Than 8</i>
86 or more semester hours	<i>More Than 4</i>

*Negative points are the number of grade points below the number which would be required for a *C* average. For example, a student with 50 calculated hours must have 100 grade points for a *C* average. One who has only 87 grade points has 13 negative points. Negative points may also be calculated by assigning two positive points to each hour of *A*, one positive to each of *B*, none of *C* grades, one negative point for each hour of *D*, and two negative for each of *E*. Total positive and negative points are added and the difference between the two totals with a negative resulting would be the negative points.

Students on Scholastic Probation who earn below a *C* (2.0) average for a semester or summer session will be placed on Scholastic Suspension. Students on Scholastic Probation who earn a *C* average or above for the next semester or summer session will be allowed to continue in attendance on Scholastic Probation until their averages are raised to the point where they have fewer than the allowable negative points listed above.

Transfer students admitted on Scholastic Probation will remain in that status until they have earned a minimum of 12 semester hours of credit with at least a *C* average at Southern Illinois University at Carbondale. If they earn below a *C* for any session while on Scholastic Probation, they will be placed on Scholastic Suspension.

Students placed on Scholastic Suspension may seek reinstatement after a minimum of two semesters' interruption but must furnish tangible evidence that additional education can be successfully undertaken.

While on Scholastic Probation students are subject to certain conditions that do not prevail when they are in Good Standing. These are as follows:

- They may not enroll for more than 14 hours per semester unless approved to do so by the dean of their academic unit.
- Other limitations may be established by the appropriate officials of the University or by the academic unit within which the students are enrolled.

Credit

UNIT OF CREDIT

Southern Illinois University of Carbondale converted from the quarter to early semester calendar effective Fall 1974. All references to hours of credit in this catalog are to semester hours unless otherwise specified. One semester hour of credit is equivalent to one and one-half quarter hours. One semester hour of credit represents the work done by a student in a lecture course attended fifty minutes per week for one semester and, in the case of laboratory and activity courses, the stated additional time.

CLASS STANDING

Southern Illinois University at Carbondale requires students to earn at least 120 semester hours of acceptable credit in order to receive a baccalaureate degree. For academic classification purposes a freshman is a student who has completed fewer than 26 hours; a sophomore, from 26 through 55; a junior, from 56 through 85; and a senior 86 or more.

ACADEMIC LOAD

The University considers 12 hours as the minimum number to constitute full-time attendance. This is the figure used for enrollment reporting purposes, by the Illinois State Scholarship Commission, and for Public Law 358 on the undergraduate level. Students attending school under some type of scholarship or assistance program that requires them to be enrolled as full-time students should check with the University office administering the program on this point. Further information on Public Law 358 is available at the Student Work and Financial Assistance Office.

Academic load guidelines are as follows:

LOAD	REGULAR SEMESTER	8-WEEK SUMMER SESSION
Minimum load for full time	12	6
Average load	15-16	7-8
Maximum load without dean's approval	18	9
Maximum load ⁵	21	11

⁵This maximum may be exceeded by very special action of the respective academic dean, and rarely more than once in the student's degree program.

Students on scholastic probation may not take more than 14 hours without approval of the dean of their academic unit. Students employed full-time may not register for more than eight hours.

EXTENSION (OFF-CAMPUS) AND CORRESPONDENCE CREDIT

The University accepts credit earned through extension, off-campus, or correspondence programs toward the bachelor's degree. Not more than 30 semester hours may be taken in correspondence work.

Southern Illinois University at Carbondale does not operate a correspondence program. Correspondence work is accepted when taken from institutions which are regionally accredited if the grade is of C quality or better.

The University offers off-campus courses whenever (1) it is apparent there is a need and potential enrollment to justify scheduling, (2) it is possible to obtain a faculty member to instruct the class, and (3) adequate laboratory and library facilities are available. Tuition is \$22.00 per semester hour of credit.

Persons may enroll for off-campus work on an audit basis provided facilities are available. They must receive permission of the instructor to do so, and they must pay the same tuition as though they were registering for credit.

Further information may be obtained from the Division of Continuing Education.

CREDIT FOR MILITARY EXPERIENCE

Students who have served one year or more of active duty and who have received an honorable discharge may receive two hours of aerospace studies credit, two hours of physical education credit, and two hours of health education credit. Service of six months to one year may result in two hours of freshman aerospace studies credit; less than six months of active service allows no college credit.

Credit will be accepted for DANTES courses within the limitations enforced for extension and correspondence work. No credit is allowed for college-level GED

tests. In evaluating credit possibilities based upon formal service-school training programs, the recommendations of the American Council on Education as set forth in the U.S. Government bulletin, *Guide to the Evaluation of Educational Experiences in the Armed Forces*, are followed.

In order to receive credit for military service veterans must present a copy of discharge or separation papers to the Office of Admissions and Records.

Graduation Procedures

The academic requirements for the various baccalaureate degrees are listed in Chapter 3. Presented here are the procedures students expecting to graduate must follow.

Graduation ceremonies are held each year at the end of the spring semester and the summer session. Degree candidates must apply for graduation with the Office of Admissions and Records by not later than the end of the first week of the semester in attendance before the expected graduation date. Candidates who plan to complete requirements at the end of the fall semester should apply for graduation during the first week of the fall semester. Although there is no ceremony at that time, degree candidates who complete requirements will have that fact indicated on their academic records. Application forms are available in the Office of Admissions and Records and may be obtained by mail by writing that office.

A \$10 graduation fee is established for all persons receiving degrees. The fee is payable at the time of application. The fee does not cover the rental fee for the cap and gown or the cost of the invitations. Both of these items are ordered through the University Book Store in the Student Center. Questions regarding the cap and gown and the invitations should be referred to the University Book Store.

In addition to completing the steps for application for graduation, students are responsible for determining that they are meeting all graduation requirements and have no outstanding financial obligation to the University. To assure that students are meeting the academic requirements, each academic unit provides a graduation check-up service through its academic advisement process, through which the satisfying of academic requirements can be verified. Even though the University does provide an academic check on graduating students, this is done primarily to be sure that it is graduating students who have met the requirements. The advising of individual students as to their progress is a service provided them and does not relieve students of their responsibility to make certain they are meeting the requirements. Students should check with their academic advisers as to the procedures they should follow in this matter as they approach graduation.

Attendance at commencement is not compulsory. If you do not plan to attend, notification must be sent to the Office of Admissions and Records. This information is needed for seating arrangements and for mailing purposes.

The University has a Graduation Appeals Committee whose function it is to hear students' petitions to be permitted to graduate even though they have not satisfied all University graduation requirements. The committee hears only those cases involving University requirements for a baccalaureate degree. Appeal relative to a major or academic unit requirement is through the appropriate administrative official. Ordinarily, the Graduation Appeals Committee will give consideration to an appeal only if there is tangible evidence that the matter at issue is of an unusual nature and that it has resulted due to conditions beyond control of the student. Appeal is initiated through the Office of Admissions and Records.

University Recognition of High Scholastic Achievement

A Scholastic Honors Day convocation is held each spring to honor students exhibit-

ing high scholastic achievement. Candidates for a bachelor's degree in May or August who have maintained a grade point average of 3.50 or higher for all of their work through the fall semester of their senior year receive special honor. All other students having a 3.50 average are also honored at the convocation. The 3.50 average is required for all work taken at Southern Illinois University at Carbondale and, in the case of transfer students, for the total record. Except in the case of graduating students, students must be attending full time to be eligible.

A variety of professional, departmental, and fraternal honorary organizations offer recognition and membership based upon scholastic achievement. Election or selection to most honoraries is noted at the Scholastic Honors Day convocation.

Graduating students with scholastic averages of 3.90 or higher receive University highest honors; those with 3.75—3.89 averages receive University high honors; and those with 3.50—3.74 receive University honors. This is recorded on the students' academic record cards and on their diplomas. The averages are required for the work taken at Southern Illinois University at Carbondale and, in the case of transfer students, for the total records.

Successful participants in all-campus honors programs which require maintenance of appropriate minimal scholastic standards, such as the President's Scholar Program receive recognition by notation on their academic records and on their diplomas. Honors courses, individual honors work, and honors curricula, all designed to serve students with high scholastic potential, are offered by departments in the School of Agriculture, the home economics departments in the College of Human Resources, the College of Liberal Arts, and the College of Science. A departmental or unit honors program consists of no fewer than six nor more than fourteen semester hours in research or independent study which is counted toward the students' majors. Some honors programs require a comprehensive examination at the end of the junior year and again at the end of the senior year. Grades may be deferred at the end of the first semester, but not from one school year to the next.

Program Flexibility for the Student

Southern Illinois University at Carbondale offers students a wide variety of programs on all higher educational levels. Chapter 4 lists specialized programs available on the associate and baccalaureate levels. In addition, the University gives constant attention to methods whereby it might better serve present day educational needs. Described below are opportunities provided students to either (1) earn credit through means other than the traditional classroom method or (2) develop programs better suited to individual student needs than are the already established programs described in Chapter 4. While greater flexibility is the goal, the University exercises appropriate supervision to ensure that flexibility is accompanied by educational soundness.

Credit by Means other than Classroom Attendance

Several methods are provided for students to earn credit by means other than the traditional classroom method. The methods currently available are described below.

HIGH SCHOOL ADVANCED PLACEMENT PROGRAM

Through the High School Advanced Placement Program high school students who are qualified through registration in an advanced placement course in their high schools or through other special educational experiences may apply for advanced placement and college credit through the Advanced Placement Program of the College Entrance Examination Board, 475 Riverside Drive, New York, New York 10027. To receive credit, students must earn a grade of 3, 4, or 5. Interested high school students should write the Office of Admissions and Records to learn the current listing of courses for which credit may be earned through this program.

Ordinarily, the maximum credit granted through advanced placement examinations is fifteen hours. It is nonresident credit, does not carry a grade, and is not used in computing the students' averages. Credit granted at another accredited college or university under this plan is transferable to this University up to a maximum of fifteen hours. Students may appeal to academic deans to be granted more than fifteen hours.

COLLEGE LEVEL EXAMINATION PROGRAM

Through the General Examinations of the College Level Examination Program (CLEP), students may apply for credit which will substitute for General Studies courses. With a score of 480 or higher on the appropriate examination, it is possible for students to receive six semester hours of credit in each of the three fields of natural sciences, social sciences and history, and humanities. The mathematics test requires a score of 580. With a score of 480 or higher on the English examination, students are permitted the opportunity to write an essay to gain proficiency credit in GSD 101 and GSD 117 (five semester hours). The credit received equates to 100-level General Studies credit. The amount of credit actually received through CLEP will be reduced by whatever 100-level General Studies course work, or its equivalent in the case of transfer students, is taken either prior or subsequent to the taking of the CLEP examinations. In the case of mathematics, a reduction in CLEP credit will occur for course work taken below calculus. An exception to this reduction of credit is permitted for the taking of elementary foreign languages on the 100-level.

CLEP examinations should be taken at one of the national testing centers and the results sent to the local CLEP coordinator. The results are then forwarded to the Office of Admissions and Records for evaluation.

PROFICIENCY EXAMINATIONS

Through its proficiency examination program the University recognizes the importance of providing encouragement for academically talented students. Such students are permitted to make application to demonstrate the mastery of certain courses through proficiency examinations. Application forms are available at the departmental offices.

The following general rules govern the proficiency examinations for undergraduate credit.

1. Students who believe they are qualified to take a proficiency examination should check with the department offering the course to determine their eligibility to do so; students scoring in the top ten percent of ACT are particularly encouraged to avail themselves of this opportunity.
2. Credit not to exceed thirty hours (fifteen hours toward an associate degree), including credit through the College Entrance Examination Board, Advanced Placement Program, and the College Level Examination Program may be earned through proficiency examinations. Credit will be nonresident. (A combined total of 40 hours may be earned through proficiency examinations and credit for work experience.)
3. Upon passing proficiency examinations students are granted course credit and receive a *Pass* grade. Their records will show the name of the course, the hours of credit granted, and a notation "credit granted by proficiency examination." Students who fail a proficiency examination receive a *Fail* grade. This results in no penalty to the students. They will not receive credit and their records will show nothing regarding the proficiency examination. However, the proficiency examination grade report form will be filed in the students' folders for reference purposes.
4. Students may not take proficiency examinations for the same course more than one time. Neither may they take a proficiency examination in a course in which they have previously received a grade.
5. No credit granted by proficiency examinations will be recorded until the

student has earned at least 12 hours of credit of *C* grade or above in residence at Southern Illinois University at Carbondale.

CREDIT FOR WORK EXPERIENCE

Southern Illinois University at Carbondale recognizes that there might well be a number of undergraduate programs for which work experience has a meaningful relationship. It, therefore, permits those undergraduate programs to grant credit for work experience that relates to students' areas of specialization. The credit granted is to apply to the major program and is awarded only upon approval by the major departments. Credit earned by work experience is limited to 30 hours and any combination of credit for proficiency examinations and credit for work experience is limited to 40 hours. Credit granted for work experience is considered nonresident credit when granted for work that is not part of a regular instructional course. Students should consult with their major departments to see whether they approve credit for work experience.

Three-Year Baccalaureate Degree Program

It is possible for students to complete the regular four-year baccalaureate degree program in three years by utilizing proficiency examinations. The equivalent of one year of credit (30 semester hours) may be earned by this method. Students who desire to follow the three-year program should make that fact known to their academic advisers at the earliest possible date so their eligibility can be determined. A combination of programs may be employed to accumulate these 30 hours as described above in the section on Credit by Means Other than Classroom Attendance.

Cooperative Education Program

The Cooperative Education Program, included in the Career Planning and Placement Center, is an optional educational pattern that provides an opportunity for students to alternate periods of academic study with periods of off-campus employment related to the student's academic majors or career goals. Periods should be of sufficient duration to provide meaningful classroom and off-campus experiences. Cooperative education provides students an opportunity to earn funds that may be needed to support and complete their education, while it gives them off-campus experiences that are closely integrated with and that enrich their total education. The University assumes the responsibility of placing students in work experiences that will meet these goals. Co-op, the experience that pays, is available to students in essentially all academic areas and without geographical limitations.

President's Degree Program

The President's Degree Program is responsible for working with the colleges and their departments to provide a distinctive educational experience for those students of high motivation and talent who are interested in pursuing interdisciplinary studies on the undergraduate level. The basic objective of this program is to provide the opportunity to create the learning environment which optimally suits such students' needs and talents.

To help accomplish the above objective two special provisions are made for students admitted to the program. Upon submission of the College Level Examination Program General Examinations (with scores consistent with the University's acceptance of CLEP credit) all General Studies requirements will be waived. Also, program members will choose an appropriate faculty adviser to help them plan logical and challenging curricula enabling them to attain their personal academic goals. Students may remain in the program as long as they are able to (a) show they are receiving some benefit from membership consistent with the objectives of the program, and (b) maintain a 3.0 grade point average. Degrees will be awarded through the regular degree granting units.

Those students who are in the top seven percent on national test scores and rank

in the top ten percent of their high school classes are eligible to apply for admission as freshmen. Continuing and transfer students should have a 3.5 grade point average to warrant serious consideration for membership.

Inquiries about the President's Degree Program should be addressed to the dean, General Academic Programs.

Technical Careers Degree Program

The University provides an opportunity to continue educational pursuits toward a baccalaureate degree for students possessing an occupational, technical, or other similarly connotated educational background. The School of Technical Careers offers a Bachelor of Science degree program in technical careers for such students. Individually designed programs are developed to meet the individual needs of the students. Programs do not duplicate baccalaureate programs already offered by other academic units.

The regular University baccalaureate admission and other academic requirements and regulations are followed in the technical careers program. Persons interested in further information about this program should contact the chairman, division of baccalaureate studies, School of Technical Careers, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. (See also School of Technical Careers in Chapter 3.)

University Studies Degree Program

The University Studies degree program permits students an additional option toward the baccalaureate degree. The program is intended for the student seeking a broad, general education and who does not wish to specialize on the undergraduate level. Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies program should consult with the dean of General Academic Programs for more information. See the description in Chapter 4.

Special Major Program

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suited to their special requirements. See the description of the Special Major in Chapter 4.

Opportunities for Study Abroad

There are five alternatives available to Southern Illinois University at Carbondale students for studying abroad.

1. A student may enroll in a Southern Illinois University study/travel program. These programs include academic courses where regular University credit is awarded to students every summer with varied opportunities available. Announcements concerning the coming summer programs are usually available in the Division of Continuing Education about the first of each year.

2. A student may study abroad through an experiment in international living/SIU cooperative program. The Experiment in International Living is an accredited educational institution located in Brattleboro, Vermont.

3. A student may travel and study abroad on an independent basis. Prior arrangements can be made through departments to enroll in study abroad courses available in selected departments or in the course, University 388.

4. A student may enroll in a study/travel program conducted by another United States institution and transfer the credit to this institution. Information concerning programs offered by United States institutions can be obtained from the coordinator for international travel and study in the Division of Continuing Education.

5. A student may enroll in either a foreign institution or an independent location of a foreign institution. The student should check with the Office of Admissions and Records before registering since many foreign institutions are not accredited.

Determination of Residency Status

The following is a direct quotation from the Board of Trustees' "Regulations Governing the Determination of Residency Status for Admission and Assessment of Student Tuition."

For the purpose of these regulations an *adult* is considered to be a student eighteen years of age or over; a *minor* student is a student under eighteen years of age. The words *he* or *his* also apply to a female unless otherwise stated or clearly indicated. The term *the State* means the State of Illinois. Except for those exceptions clearly indicated in these regulations, in all cases where records establish that the person does not meet the requirements for Resident status as defined in these regulations the nonresident status shall be assigned.

Residency Determination

Evidence for determination of residence status of each applicant for admission to the University shall be submitted to the Director of Admissions at the time of application for admission. A student may be reclassified at any time by the University upon the basis of additional or changed information. However, if the University has erroneously classified the student as a Resident, the change in tuition shall be applicable beginning with the term following the reclassification; if the University has erroneously classified the student as a nonresident, the change in tuition shall be applicable to the term on which the reclassification occurs, provided the student has filed a written request for review in accordance with these regulations. If the University has classified a student as a Resident based on false or falsified documents, the reclassification to nonresident status shall be retroactive to the first term during which residency status was based on the false or falsified documents.

Adult Student

An adult, to be considered a Resident, must have been a bona fide resident of the State for a period of at least three consecutive months immediately preceding the beginning of any term for which he registers at the University, and must continue to maintain a bona fide residency in the State, except that an adult student whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident student.

Minor Student

The residence of a minor shall be considered to be, and to change with and follow:

- a. That of his parents, if they are living together, or living parent, if one is dead; or
- b. If the parents are separated or divorced, that of the parent to whom the custody of the person has been awarded by court decree or order, or, in the absence of a court decree or order, that of the parent with which the person has continuously resided for a period of at least three consecutive months immediately preceding his registration at the University; or
- c. That of the adoptive parents, if the person has been legally adopted and, in the event the adoptive parents become divorced or separated, that of the adoptive parent whose residence would govern under the foregoing rules if that parent had been a natural parent; or

- d. That of the legally appointed guardian of the person; or
- e. That of the *natural* guardian, such as a grandparent, adult brother or adult sister, adult uncle or aunt, or other adult relative with whom the person has resided and by whom he has been supported for a period of at least three consecutive months immediately preceding his registration at the University for any term, if the person's parents are dead or have abandoned him and if no legal guardian of the person has been appointed and qualified.

Parent or Guardian

No parent or legal or natural guardian will be considered a resident of the State unless he (a) maintains a bona fide and permanent place of abode within the State, and (b) lives, except when temporarily absent from the State with no intention of changing his legal residence to some other State or country, within the State.

Emancipated Minor

If a minor has been emancipated, is completely self-supporting, and actually resides in the State, he shall be considered to be a Resident even though his parents or guardian may reside outside the State. An emancipated minor who is completely self-supporting shall be considered to actually reside in the State of Illinois if he has maintained a dwelling place within the state uninterrupted for a period of at least three consecutive months immediately preceding the beginning of any term for which he registers at the University. Marriage or active military service shall be regarded as effecting the emancipation of minors, whether male or female, for the purposes of this regulation. An emancipated minor whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident student.

Married Student

A nonresident student, whether male or female, or a minor or adult, or a citizen or noncitizen of the United States, who is married to a resident of the State, may be classified as a Resident so long as he continues to reside in the State; however, a spouse through which a student claims residency must demonstrate his or her own residency in compliance with the requirements applicable to students seeking Resident status.

Persons Without United States Citizenship

A person who is not a citizen of the United States of America, to be considered a Resident, must have permanent residence status with the United States Immigration and Naturalization Service and must also meet and comply with all the other applicable requirements of these regulations to establish Resident status.

Armed Forces Personnel

A person who is actively serving in one of the Armed Forces of the United States and who is stationed and present in the State in connection with that service and submits evidence of such service and station, shall be treated as a Resident as long as the person remains stationed and present in Illinois. If the spouse or dependent children of such member of the Armed Forces also live in the State, similar treatment shall be granted to them.

A person who is actively serving in one of the Armed Forces of the United States and who is stationed outside the State may be considered a Resident only if he was a resident of the State at the time he entered military service.

A person who is separated from active military service will be considered a Resident of Illinois immediately upon separation providing he: (a) was a resident of the State at the time he entered military service, (b) became treated as a Resident while in the military by attending school at Southern Illinois University while

stationed within the State, or (c) has resided within the State for a period of three months after his separation.

State and Federal Penitentiary

A person who is incarcerated in a State or Federal place of detention within the State of Illinois will be treated as a Resident for tuition assessment purposes as long as he remains in that place of detention. If bona fide residence is established in Illinois upon release from detention, the duration of residence shall be deemed to include the prior period of detention.

Minor Children of Parents Transferred Outside the United States

The minor children of persons who have resided in the State for at least three consecutive months immediately prior to a transfer by their employers to some location outside the United States shall be considered Residents. However, this shall apply only when the minor children of such parents enroll in the University within five years from the time their parents are transferred by their employer to some location outside the United States.

Dependents of University Employees

The spouses and dependent children of all staff members (academic, administrative, non-academic) on appointment with the University shall be considered as Resident students for purposes of tuition assessment.

Definition of Terminology

To the extent that the terms *bona fide residence*, *independent*, *dependent*, and *emancipation* are not defined in these regulations, definitions shall be determined by according due consideration to all of the facts pertinent and material to the question and to the applicable laws and court decisions of the State of Illinois.

A bona fide resident is a domicile of an individual which is his true, fixed, and permanent home and place to which, whenever he is absent, he has the intention of returning. Criteria to determine this intention include but are not limited to year around residence, voter registration, place of filing tax returns (home state indicated on federal tax return for purposes of revenue sharing), property ownership, driver's license, car registration, vacations, and employment.

Procedure for Review of Residency Status or Tuition Assessment

A student who takes exception to the residency status assigned or tuition assessed shall pay the tuition assessed but may file a claim in writing to the appropriate official for a reconsideration of residency status and an adjustment of the tuition assessed. The written claim must be filed within 30 school days from the date of assessment of tuition or the date designated in the official University calendar as that upon which instruction begins for the academic period for which the tuition is payable, whichever is later, or the student loses all rights to a change of status and adjustment of the tuition assessed for the term in question. If the student is dissatisfied with the ruling in response to the written claim made within said period, he may appeal the ruling to the Legal Counsel by filing with the appropriate official within twenty days of the notice of the ruling a written request.

Policy on the Release of Student Information and Access to Student Records at Southern Illinois University at Carbondale

I. Purpose

Southern Illinois University at Carbondale, hereinafter referred to as the University, maintains individual records and information about students for the purpose

of providing educational, vocational, and personal services to the student. For the purpose of complying with federal regulations regarding the maintenance of confidentiality of student educational records, as required by the Family Educational Rights and Privacy Act of 1974, the following policy has been enacted.

II. Definitions

- A. "Student" is defined as a person who is or has been enrolled at Southern Illinois University in a course of study either on campus or off campus. Solely for purpose of this policy, any student attending Southern Illinois University will be considered to be an adult and to have sole control over the release of his/her information except as provided in this policy. The term "enrolled" is defined as having registered and paid fees into a course of study.
- B. "Education records" means those records which are directly related to a student, and are maintained by Southern Illinois University or any subunit or by any party acting for Southern Illinois University. The term does *not* include
 - 1. personal records of instructional, supervisory, and administrative personnel which are not revealed to other individuals,
 - 2. records of a law enforcement unit of an educational institution which are maintained apart from the education records, maintained solely for law enforcement purposes, and are not disclosed to individuals other than law enforcement officials of the same jurisdiction.
For purposes of this policy, the Southern Illinois University Security Office will be treated as an outside agency and will therefore be required to comply with all regulations relating to the disclosure of information from students' educational records, as set forth in the policy.
 - 3. employment records, so long as they are maintained separately from any educational record.
 - 4. records of a physician, psychologist, or other recognized professional or paraprofessional acting in his or her professional capacity which are used only in connection with treatment and are not disclosed to individuals other than those providing the treatment; *Provided*, that these records can be personally reviewed by a physician or other appropriate professional of the student's choice.
 - 5. records which contain only information relating to a person after that person was no longer a student at Southern Illinois University, such as alumni files.
- C. "Student Information" means any information contained in an educational record as defined in II. B.
- D. "Personally identifiable information" includes:
 - 1. The name of a student, the student's parent, student's spouse, or other family member.
 - 2. The address of the student.
 - 3. A personal identifier such as the student's social security number or student number.
 - 4. A list of personal characteristics which would make the student's identity easily traceable.
 - 5. Other information that would make the student's identity easily traceable.
- E. "Directory information" includes:
 - 1. Student name
 - 2. Student local address and telephone number.
 - 3. Student home address and telephone number.
 - 4. Current term hours carried.
 - 5. Classification (freshman, sophomore, etc.)
 - 6. Academic unit.
 - 7. Major

8. Dates of attendance
9. Degrees and honors earned and dates.
10. The most previous educational agency or institution attended prior to enrollment at Southern Illinois University.
11. Participation in officially recognized activity or sport.
12. Weight, height, and pictures of members of athletic teams.
13. Date of birth.
14. Picture.

III. Basic Policy Regarding Disclosure of Information from Educational Records

A. Disclosure not requiring prior consent

1. The appropriate recordkeeping office shall obtain the written consent of the student before disclosing personally identifiable information from the records of a student, except in the case of directory information or disclosures to:

- a. The student himself/herself.
- b. University personnel who have a legitimate educational need to permit their functioning or research. The sufficiency of the need will be determined by the head of the unit from which the records are sought.

Student information supplied to any Southern Illinois University personnel or unit is provided on the basis that it is needed to permit their necessary functioning. All members of the faculty, administration, and clerical staff must respect confidential information about students which they require in the course of their work. They are bound by the conditions outlined in this policy statement relative to the release of student information. All institutional personnel should be alert to refer promptly to the appropriate office requests for transcripts, certifications, or other information which that office typically provides. They should restrict their responses to acknowledging, when appropriate, the receipt of requests for student information germane to their sphere of responsibility.

- c. Officials of other schools or school systems in which the student seeks or intends to enroll, if there is a legitimate need. The sufficiency of the need will be determined by the head of the unit from which the records are sought. A copy of any information sent will be provided to the student upon request.
- d. Faculty or students conducting student characteristic research providing the research project has written approval of the academic unit executive officer sponsoring the research and providing guarantees are made that no personally identifiable information will be published or released.
- e. Certain state and federal representatives specified by law for the sole purpose of evaluation and auditing of governmentally funded programs in which the University participates, with the guarantee that the identity of the students will be protected.
- f. State and local officials as directed by the State Statute adopted prior to November 19, 1974, as approved by University Legal Counsel.
- g. Organizations conducting studies for, or on behalf of, state or federal educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction, with the guarantee that the identity of the student shall be protected.
- h. In connection with financial aid for which the student has applied or received.
- i. Accrediting organizations to carry out their accrediting function, with the guarantee that the identity of the student shall be protected.
- j. Appropriate persons in connection with an emergency, if knowledge of

such information is necessary to protect the health or safety of a student or other persons.

- k. Comply with a judicial order or subpoena, but the University should make a reasonable effort to notify the student first. The sufficiency of the order or subpoena will be determined by University Legal Counsel and that office shall send the required notice to the student.

B. Disclosure Requiring Prior Consent

1. Except as listed in A above, all requests for student information other than directory information must be accompanied by a written consent of the student.
2. The written consent required by this section must be signed and dated by the student giving the consent and shall include (a) a specification of the records to be disclosed, and (b) the party or parties to whom the disclosure may be made.
3. When the disclosure is made pursuant to this section, the appropriate recordkeeping office shall, upon request, provide a copy of the records which are disclosed to the student.
4. Student information will not be released to parents of students without the student's permission.

C. Disclosure of Directory Information

Directory information pertaining to students may be released by the University at any time provided that it publish the definition at least once each academic year in the campus student newspaper or other designated publication with wide circulation, and the individual student is given a reasonable period of time to inform the University in writing, through the Office of Admissions and Records, that he/she does not wish such information concerning himself/herself to be released without his/her prior consent. The Office of Admissions and Records will be responsible for identifying or deleting all information which the student desires not to be released outside the University and for informing all University recipients of that information that such information is not to be released. The student must request deletion of information each year.

The procedural requirements of this section do not apply to the disclosure of directory information from the education records of an individual who is no longer in attendance at the University. Thus, the University (or appropriate recordkeeping office) is not required to give public notice of the above to former students.

All recipients of student information will be bound by this policy. Lists of student information are never knowingly provided to any requesting party for a commercial or political purpose. If a student directory is published, it shall be equally available to all.

D. Records of Disclosure Made

Records of disclosure are not required to be kept in the record of a student when the disclosure is initiated by the student himself/herself.

The University may disclose personally identifiable information from the education records of a student only on the condition that the party to whom the disclosure is made will not further disclose the information without the student's written consent, except in the case of disclosure of directory information.

The University shall, except for the disclosure of directory information, inform the party to whom disclosure is made of the obligation to receive the student's consent before further disclosure to other parties.

E. Waiver of Right to Inspect and Review Education Records

1. The student may waive his/her right to inspect and review education records. The waiver, in order to be valid, must be in writing and signed by

the student. The University (or each appropriate recordkeeping office) may not require a waiver of rights but it may request such a waiver.

2. If a student has waived his/her right to see confidential letters of recommendation placed in his/her record after January 1, 1975, the waiver will be effective only if: (a) the applicant or student is, upon request, notified of the names of all individuals providing the letters or statements; (b) the letters or statements are used only for the purpose for which they were originally intended, and (c) such waiver is not required by the University as a condition of admission to or receipt of any other service or benefit from the University.
3. A waiver may be revoked, but the revocation must be in writing and signed by the student. Revocation of waiver will affect only documents received after its execution.

IV. Identification and Description of Student Information

A. Academic Records

The Office of Admissions and Records retains the official academic record of a student. It is a cumulative history of a student's admission, registration, and academic participation and performance. Certain biographic and demographic information is also kept for identification for enrollment and research-related purposes. For information concerning these records contact the Director of Admissions and Records.

Academic records may also be maintained in academic units, departments and divisions. For information concerning these records contact the head of the academic unit, department, or division in question. The Office of Institutional Research also maintains some academic records.

B. Financial Records

Offices within the Business area maintain certain financial records which relate to the payment and accounting of tuition, fees, and other charges. They also maintain records which record student loans and grants. For information concerning these records, contact the Bursar's Office.

For billing purposes, the Office of Admissions and Records maintains a record of financial aid received and tuition and fees paid. For information concerning these records, contact the director of Admissions and Records.

The Office of Student Work and Financial Assistance maintains records of students receiving loans, grants, and aid along with scholarship information and some academic information. It also maintains records pertinent to student employment including the family financial statement. For information concerning these records, contact the Director of Student Work and Financial Assistance.

The Housing Office maintains records of housing accounts. For information concerning these records, contact the Director of Housing.

C. Medical/Counseling/Clinical Center Records.

The University Health Service maintains medical records of students who have required medical assistances through the student health program. Only information pertinent to the health of the individual is contained therein. For information concerning these records, contact either the administrative director or the medical director of Student Health.

The University Counseling Center maintains records pertinent to services rendered by that office. For information concerning these records, contact the director of Counseling Center.

The University Clinical Center maintains records pertinent to services rendered by that office. For information concerning these records, contact the director of the Clinical Center.

D. Disciplinary Records

The Office of Student Affairs maintains records of disciplinary action which has been taken against a student with documentation pertaining thereto. That office also maintains only the academic information necessary to permit its functioning. For information concerning these records, contact the dean of Student Life.

E. Placement Records

The Office of Career Planning and Placement creates a record for those persons who wish to avail themselves of its services, with student's voluntary participation. This information is distributed to potential employees. It consists of self-completed resumes and various personal references. For information concerning these records, contact the director of Career Planning and Placement.

V. Access to Records

A. Right to Inspect or Review Educational Records

1. The student has the right to physically review his records in the presence of a designated University representative.
2. Requests for review may be required to be submitted in writing to the appropriate office.
3. That office shall comply with the request within a reasonable time, but in any case, compliance shall be no more than thirty (30) days after the receipt of the request.
4. Where necessary, interpretation of the record shall be provided by qualified University personnel.
5. Original records cannot be removed from University premises. A copy will be provided if requested, but only if not providing a copy would preclude review of the educational records by the student.
6. Copies of transcripts from other educational institutions will be provided only if the original source of those transcripts is no longer available or going to the original source would cause undue hardship as determined by this University.

B. Limitations on Right to Inspect or Review

1. The student may not inspect the following records:
 - a. Financial records and statements of their parents.
 - b. Confidential letters or materials placed in records before January 1, 1975 so long as they were solicited with an understanding of confidentiality and are used only for the purpose for which they were written.
 - c. Confidential letters of recommendation and confidential statements of recommendation placed in the education records of the student after January 1, 1975, are subject to the student's right to inspect and review unless the student has signed a written waiver.
2. Reports that involve two or more persons may be censored to protect the identity of the other person(s).

C. Administrative Hold on University Records

On occasion it is necessary for a University to place an administrative hold on a student's ability to request a transcript, to register for a subsequent term, to reenter the University after a period of attendance interruption, or to be officially graduated.

In cases where an administrative hold has been placed on a student's record, the student may view such records but will not be able to obtain a copy of said record until the administrative hold is removed through the appropriate University channels.

VI. Challenging Contents of a Student's Educational Record

A. Purpose

A student has the right to challenge the content of a record on the ground that he/she believes it is inaccurate, misleading, or otherwise in violation of

his/her privacy or other rights and to have inserted in the record his/her written explanation of its contents. Academic grade review procedures are covered in the University Catalog and/or such particular academic unit, department or division and not by this policy.

B. Procedure

To initiate such a challenge, the student shall, within sixty (60) days after he/she has inspected and reviewed the record in question for the first time, file with the University office responsible for maintaining such record a written request for correction, on a form specified by the University. Within thirty (30) days following receipt of such request, the head of such office, or his/her representative, shall review the record in question with the student and either order the correction or deletion of such alleged inaccurate, misleading, or otherwise inappropriate data as specified in the request or notify the student of the right to a hearing at which the student and other persons directly involved in the establishment of the record shall have an opportunity to present evidence to support or refute the contention that the data specified in the request are inaccurate, misleading, or otherwise inappropriate.

C. Hearing.

The student shall be given written notice sent to his/her last known address of the time and place of such hearing not less than ten (10) days in advance. The hearing will be conducted by a University representative who does not have a direct interest in the outcome. The student might well challenge the hearing officer. Any disagreement regarding the hearing officer will be resolved by the appropriate Vice President.

The student shall have the right to attend the hearing, to be advised by an individual of his/her choice at his/her own expense, including an attorney, and to call witnesses in his/her behalf. The student shall be notified in writing of the decision within ten (10) days following the hearing or within five (5) days of a decision without a hearing. Such decision is final. The decision reached shall be based solely upon the evidence presented at the hearing and shall include a summary of the evidence and reasons for the decision.

(Note: A hearing may not be requested by a student to contest the assignment of a grade; however, a hearing may be requested to contest whether or not the assigned grade was recorded accurately in the education records of the student.)

VII. Destruction of Records.

A. The University may destroy education records when they are no longer necessary, with the following limitations:

1. Education records may not be destroyed if there is an outstanding request to inspect and review them.
2. Explanations placed in the record by the student and the record of disclosure of information must be maintained as long as the education record to which it pertains is maintained.

VIII. Right to File Complaints

- A. If the student thinks his or her rights have been violated, he or she should first file a complaint with the head of the office which maintains the records in question.
- B. After exhausting all the internal remedies available within the University, if the student still thinks his or her rights have been violated, written complaints can be filed with:

The Family Educational Rights and Privacy Act Office
Department of Health, Education, and Welfare
330 Independence Avenue S. W.
Washington, D.C. 20201

The office shall notify the complainant and the University of the receipt of the complaint and an investigation will follow.

Issuance of Transcripts

A transcript of the student's official educational record is issued by the Office of Admissions and Records under the following conditions: A transcript is sent, issued, or released only upon a student's request or with the student's explicit permission, except that such permission is not required when University faculty and administrative official or other educational institutions request transcripts for official purposes. In addition, requests will be honored from a philanthropic organization financially supporting a student and from a recognized research organization conducting educational research provided the confidential character of the transcript is protected. One transcript will be issued directly to a student upon request. The transcript will have the statement, Issued to the Student, stamped on its face. Transcripts will be sent without charge to recipients other than the student as requested by the student. A transcript will not be sent, issued, or released if a student owes money to the University as verified by the Bursar's Office or the Housing Business Services Office.

Student Conduct Code

The University, through the Student Conduct Code, provides protections which promote and strengthen the learning process. The code is designed to create and maintain an environment conducive to the educational mission of the University. As an educational tool, the code identifies rights and responsibilities of students. Sanctions, when used, are designed for educational growth rather than punitive effect. The administrative responsibility for implementing, enforcing, and evaluating the code is assigned to the Student Relations Office.

Each student is expected to know the code which is published in the *Daily Egyptian* and available in brochure form in the Student Relations Office. All charges are filed by the Student Relations Office on behalf of the reporting party or victim and charges may be dropped only by the Student Relations Office. All students charged with a violation of the code have a choice between a judicial board hearing and an administrative hearing. This choice exists at all three levels of adjudication. Initial jurisdiction hearings are held at the residence hall level on all incidents occurring within the living area, regardless of where the student lives. Initial jurisdiction hearings are held at the campus level for all other incidents. An appeal procedure is available to handle requests for appellate consideration.

Special details about the code and judicial procedures are made available to charged students. Students may visit the Student Relations Office, Building T-40, for additional information.

3

Academic Programs

Degrees Offered

Southern Illinois University at Carbondale grants the following degrees:

ASSOCIATE

Associate in Applied Science
Associate in Art

BACCALAUREATE

Bachelor of Arts
Bachelor of Music
Bachelor of Music Education
Bachelor of Science

ADVANCED

Master of Arts
Master of Business Administration
Master of Fine Arts
Master of Music
Master of Music Education
Master of Public Affairs
Master of Science
Master of Science in Education
Specialist Degree
Doctor of Philosophy

In addition to the above degrees, Southern Illinois University at Carbondale offers undergraduate courses in preprofessional areas.

The School of Law and the School of Medicine offer professional degrees. Information about the School of Law may be obtained by writing the dean, School of Law, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. Information about the School of Medicine may be obtained by writing the dean, Southern Illinois University School of Medicine, P.O. Box 3296, Springfield, Illinois 62708.

For information concerning academic programs on the advanced degree level, refer to the Graduate Catalog or write the dean, Graduate School, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Degree Requirements

Associate Degree

Each candidate for an associate degree must complete a minimum of 60 hours of credit in approved courses. Each student must maintain a *C* average. In addition to the technical courses each program requires certain General Studies courses to be taken. The degree granting unit for the associate degree is the School of Technical Careers.

Baccalaureate Degree

Each candidate for a bachelor's degree must complete the requirements listed below.

Hour Requirements. Each student must have earned a minimum of 120 semester hours of credit, although some programs may require more. Of the 120 hours, at least 60 must be earned at a senior-level institution. All credit granted may be applied toward the 60-hour requirement unless the credit has specifically been designated as being from a community college. Credit for work experience, CLEP, military credit, and proficiency examination credit awarded by an accredited senior-level institution are counted toward the 60-hour requirement.

Residence Requirements. Each student must complete the residence requirement by taking the last year, which is defined as 30 semester hours, or by having three years of credit, which is defined as 90 semester hours at Southern Illinois University at Carbondale. Only credit for those courses for which the student has registered and for which a satisfactory grade has been recorded at Southern Illinois University at Carbondale may be applied toward the residence requirement hours.

Average Requirements. Each student must have a *C* average for all work taken at Southern Illinois University at Carbondale and a *C* average for all major work taken at Southern Illinois University at Carbondale.

The University has adopted a policy for students whose only graduation problem concerns the *C* average for all work taken at Southern Illinois University at Carbondale. Such students may ask that the average be computed by one of the following methods: (1) by excluding from calculation of the grade point average a maximum of ten semester hours of *D* or *E* grade earned outside the major which was taken prior to the last 60 semester hours of completed work at Southern Illinois University at Carbondale or, (2) by earning a grade point average of 2.10 or higher for the last 60 semester hours of work completed at Southern Illinois University at Carbondale. The student will be graduated if the average meets either of the two alternatives. It should be noted that the two alternatives are offered as a means of computing the grade point average for graduation only and may not be used for any other purpose.

Course Requirements. Each student must meet the University requirements and the requirements of the academic unit, the major, and the minor, if required. The General Studies requirements which are explained later in this chapter total 45 semester hours of credit although there are methods available to reduce the number for certain students. The requirements of each academic unit are also

listed in this chapter, while the requirements for the specific major and minor programs are explained in Chapter 4.

Second Bachelor's Degree

A student who desires a second bachelor's degree must complete 30 hours in addition to those required for the first degree, making a total of 150 semester hours minimum, and must fulfill the requirements for the second degree. If a student's first bachelor's degree is from another university, 30 hours in residence is required to fulfill the requirements for the second bachelor's degree. If the first bachelor's degree was earned at Southern Illinois University at Carbondale, a minimum of 10 semester hours of the 30 required must be taken in residence at the University.

Preprofessional Programs

Preprofessional students may, subject to certain conditions, obtain a bachelor's degree after three years' work (90 semester hours) at Southern Illinois University at Carbondale and one or more year's work in a professional school. During their three years of residence at Southern Illinois University at Carbondale, they need to have completed all requirements other than elective hours for the bachelor's degree which they are seeking.

In some cases the completion of major requirements is possible by their taking certain courses at the professional school, but this is permitted only upon the prior approval of the appropriate divisional head. Also, there needs to be completion of at least one year of professional school with acceptable grades in an approved medical school, an approved dental school, an approved veterinary school, an approved law school, an accredited physical therapy or medical technology school, a hospital plan approved by the University or an accredited school of osteopathy. In all cases, all University graduation requirements must be met. It is advisable for a student interested in this program to make the decision to seek a bachelor's degree before entering the professional school so that any questions may be clarified at an early date.

The 3/2 program of the College of Business and Administration is available to qualified transfer students and students majoring in areas other than business. The program permits a student to devote a part or all of the fourth year of study to fulfilling requirements for the Master of Business Administration degree. For details, contact the associate dean for graduate studies in business administration.

General Studies Requirements

The General Studies requirements are the basic educational requirements for all the baccalaureate programs of the University. The General Studies curriculum is divided into five major areas; the number of semester hours required in each area is listed below.

Area A Man's Physical Environment and Biological Inheritance	9
Area B Man's Social Inheritance and Social Responsibilities	9
Area C Man's Insights and Appreciations	9
Additional course work from Areas A, B, or C	3
Area D Organization and Communication of Ideas	11
Area E Human Health and Well Being	4
<hr/>	
Total	45

Students must complete a total of 30 semester hours in Areas A, B, and C. Within each Area they must complete a minimum of 9 semester hours, and they must include course work from at least 3 different disciplines in each Area. The remaining 3 semester hours may include coursework from any one of Areas A, B, or C, or from any combination of these three Areas.

Within Area D, the following are required: 5 semester hours of English composi-

tion; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communications as offered in Area D. Some programs and upper division academic units have specific requirements for demonstration of competence in English composition. A student may determine which programs or units have this requirement by referring to program requirements listed in Chapter 4.

In Area E the courses taken must include more than one activity or subject. Prospective teachers should also check the section of this chapter titled Teacher Education Program.

MEETING GENERAL STUDIES REQUIREMENTS

These requirements may be met by any of the following, subject to the rules and limitations appropriate to each means.

1. Completion of appropriate General Studies courses (listed at the beginning of the next chapter) with a passing grade;
2. Proficiency credit by examination for General Studies courses or approved substitute courses.
3. Proficiency credit via General Examinations of the College Level Examination Program or CEEB Advanced Placement Program (See Program Flexibility in Chapter 2);
4. Transfer credit for courses evaluated as equivalent to General Studies courses or approved substitute courses; and
5. Completion of departmental courses listed as substitutions for General Studies courses. (See List of Approved Substitutions below.)

General Studies courses are offered at the 100, 200, and 300 levels. Few of these courses have specific prerequisites, and a student may decide when to enter a given level. Academic advisers can provide the student with appropriate information about individual General Studies courses.

Beginning students are not restricted to enrolling in only General Studies courses; the student who has selected a major is assisted in determining the proper courses to take by consulting curriculum guides obtained from an academic adviser.

List of Approved Substitutions. The departmental courses which have been approved as substitutions for General Studies courses are listed below. In no case does the departmental course substitute for more credit hours than the credit hours allowed in the comparable General Studies course.

GENERAL STUDIES COURSE	APPROVED SUBSTITUTES
GSA101-3	One of: Physics 203, 204, 205, 253, 254, 255, or 3 semester hours of technical physics. (The substitution of Physics 253, 254, or 255 is limited to one semester hour.)
GSA 106-3 and 107-1	One of: Chemistry 115, 140, 222, 224, 225, or 4 semester hours of technical chemistry
GSA 110-3	Geology 220
GSA 115-3	One of: Biology 306, 308, 309; Botany 200; Zoology 118
GSA 202-3	One of: Physics 203b, 204b, or 205b
GSA 208-1 and 209-3	Physiology 210, Animal Industries 331, or Military credit for physiology
GSA 240-3	Biology 307
GSA 314-2	Biology 305
GSA 330-3	Military credit for meteorology
GSA unassigned-1 to 12	One to 12 semester hours from President's Scholars 251a and/or 351a

GSB 103-3	Geography 300
GSB 211-3	One of: Agricultural Industries 204; Economics 214, 215
GSB unassigned-1 to 12	One of 12 semester hours from President's Scholars 251b and/or 351b
GSC 100-2	Music 101, 102, or 2 hours of 013, 014, 017, 020, 021, 022
GSC 101-3	Art 100
GSC 204-3	Art 207
GSC 206-3	Music 105a
GSC Foreign Language	Foreign Language
(Note: A student may substitute on an hour-for-hour basis to a maximum of four hours, provided the student has taken GSC courses totaling five hours in two other disciplines. Any additional hours of foreign language may be counted toward the three hours of additional course work required in areas A/B/C).	
GSC unassigned-1 to 12	One to 12 semester hours from President's Scholars 251c and/or 351c
GSD 101-3	Linguistics 101
GSD 107-4	One of: Mathematics 110, 111, 114, 116, 117, 139, 140, 150, 151, 159, 250, 259, 282, or 4 semester hours of technical mathematics
GSD 117-2	Linguistics 102
GSD 118-2	One of: Administrative Sciences 302, Linguistics 103, or 2 semester hours of technical writing
GSE 101-114-4	Four semester hours from: Physical Education 115, 116, 117, 118, 119, 120, 170
GSE unassigned-1 to 4	One to 4 semester hours from President's Scholars 251e and/or 351e

A maximum of 15 semester hours of comparable technical coursework can be substituted for General Studies requirements. Some of these substitutions are listed above; others may be possible on an individual request to the Dean of General Academic Programs.

Flexibility and Other Features. The University believes in a strong, well-rounded general education program but does not accept the idea that every student must take the same courses or program in meeting the objective. Therefore, considerable latitude is permitted the student in meeting the objectives; alternate routes are provided within the General Studies framework.

Accommodations to differences in student background, interest, and aspirations include:

1. Substitutions of approved departmental courses can be made for General Studies courses as previously outlined;
2. Proficiency examinations are offered regularly for some General Studies courses; students should consult with their academic advisers for information concerning these examinations
3. A University Studies Program (See Chapter 4) allows the student to design a broad undergraduate education.

The Transfer Student and General Studies. A transfer student who expects to graduate from Southern Illinois University at Carbondale with a baccalaureate degree must meet the General Studies requirements as outlined previously. All work done at other institutions will be evaluated and comparable courses will be applied toward the General Studies requirements.

A student who graduates with an associate degree in a baccalaureate-oriented program from a Class I Illinois two-year institution, or one regionally accredited,

will be considered as having junior standing and as having met all General Studies requirements.

Additional information concerning admission of a transfer student and the evaluation of transfer credit can be found in the sections of this catalog pertaining to those specific subjects.

Academic Units and Programs Offered

School of Agriculture

GILBERT H. KROENING, *Dean*

Departments: Agricultural Industries; Animal Industries; Forestry; Plant and Soil Science

The School of Agriculture offers the following majors leading to the Bachelor of Science degree.

Agricultural Education

Animal Industries

Agricultural Industries

Forestry

Agriculture, General

Plant and Soil Science

It is recommended that high school students who are planning to pursue one of the above majors include the following in their high school programs: four units of English, two to four units of mathematics (algebra, geometry, advanced mathematics); two to three units of science (biology, chemistry, physics); and two to three units of social studies. Remaining units might well include agriculture.

For transfer students wishing to pursue a major in one of the agricultural or forestry areas, courses taken prior to entering Southern Illinois University at Carbondale should include a distribution in the physical and biological sciences, social sciences, and humanities. In addition a course in speech and appropriate sequences in English composition and college algebra should be included. A potential transfer student who has already identified a major for the bachelor's degree may select with greater precision the courses which will be transferred by consulting the curriculum for that major in Chapter 4.

A student planning to take preprofessional courses in veterinary science should register in the School of Agriculture's four-year curriculum in animal industries.

The School of Agriculture has no school-wide requirements other than the University requirements.

Of the recent graduates of the School of Agriculture, about 35% have been employed in private industry, about 20% have entered farming or farm management and about 15% have been employed in each of: government (federal, state, county, and city); education or extension; graduate study or professional schooling.

In addition to preparing students for employment in the traditional agricultural and agriculturally related occupations, the School of Agriculture is increasing its emphasis on the currently important areas of environmental studies and ecology.

School of Agriculture students come from both rural and urban homes, and a rapidly increasing number of agriculture and forestry students are women. Students who elect any one of the six majors in the School of Agriculture are counseled and advised for registration in the school. Graduates receive the Bachelor of Science degree.

The Agriculture Building houses the offices, classrooms, and laboratories of the school. Other research and teaching facilities include over one-third acre of greenhouses plus 2000 acres of farm and timber land.

College of Business and Administration

JOHN R. DARLING, *Dean*

Departments: Accountancy; Administrative Sciences; Finance; Marketing

The College of Business and Administration aims to prepare students to perform successfully in business and other organizations functioning within a changing social, economic, and political environment. Study provides the student with fundamental principles and practices of organizational behavior and allows the mastering of knowledge and skills for effective management. The curriculum provides a broad base for understanding business while simultaneously allowing in-depth study within an area of concentration. Students find that the professional education they receive in the college is desired by business, governmental units, and other public institutions. The advanced curriculum and related programs provide students not only with a meaningful education but with a means of relating that education to organizations and commerce.

The College of Business and Administration offers the following majors leading to the Bachelor of Science degree.

Accounting	Business Economics
Administrative Sciences	Finance
Business and Administration	Marketing

Any student, whose personal and professional goals cannot be met by any of the majors listed above, may design a special major in accordance with the University guidelines which are fully described in Chapter 4 of this catalog.

While minors are not offered, academic advisers of the college will assist and counsel those students enrolled in other units of the University having an interest in electing business courses.

All programs offered in the College of Business and Administration are accredited by the American Assembly of Collegiate Schools of Business.

The College of Business and Administration offices are located in the General Classroom Building, and the classes are conducted in various buildings throughout the campus.

Pre-College Preparation. High School and preparatory school students are urged to follow a program which includes at least three units of both English and mathematics, with a substantial portion of the remainder of their study programs devoted to such academic subject areas as humanities, the sciences, and social studies.

Transferred Credits in Business Courses. Subject to the University's policies regarding acceptance of transferred credits, the college accepts college-year credit earned in business and economics courses from accredited two- or four-year institutions of higher education and counts such credit toward the 120 semester hours required for graduation. However, if such courses are offered at the lower division (freshman and sophomore) level at the institution where completed, only those courses shown below will be treated as equivalencies to college- or department-required courses.

<i>Subject</i>	<i>Hours</i>
Principles of accounting	6
Cost accounting	3

Economic principles	6
Business economics statistics	3
(where college algebra is a prerequisite)	
Basic computer courses ¹	3

¹Computer coursework completed at other universities and colleges will be accepted as transfer credit for the College of Business and Administration core computer requirement if that course is designed to teach one and only one of the following languages: FORTRAN, BASIC, COBOL, RPG, PL1, or ALGOL courses that survey numerous languages are not acceptable. Further, coursework with emphasis on unit record or data processing equipment will not be considered equivalent to the college's computing requirement. Acceptable coursework should have a one-language base and present the student with advanced programming concepts, e.g., loops, arrays, etc.

Additionally, three semester hours of introduction to business and three semester hours of business law (contracts and agency) completed at the lower division level are acceptable in satisfaction of department requirements, in those programs where these courses are required.

Students also have the opportunity of validating additional course work and nothing in the above statement abridges a student's right to satisfy graduation requirements by proficiency (or competency) examinations. Such examinations are treated as a student right by the college and are available for most courses.

Grade Point Average Requirement. Graduation from the College of Business and Administration requires achievement of a 2.000 grade point average in all business-prefix (ACCT, ADSC, ECON, FIN, MKTG) courses offered at Southern Illinois University at Carbondale. Accounting majors are subject to the additional requirement of achieving a 2.000 grade point average in accounting-prefix (ACCT) courses completed at Southern Illinois University at Carbondale.

Pass/Fail Policy of the College. Business majors may not register on a Pass/Fail basis for courses used to satisfy requirements of the professional business core.

Course Sequencing. It is of the utmost importance that required courses be sequenced properly. Sequencing guides are available from the college's academic advisement center and are published in the College of Business and Administration's *Student Information Manual*. Courses on the 300 to 400 levels are reserved for juniors and seniors.

Forty Percent Rule. At least 40% of the course work of all business majors must be devoted to courses offered outside the College of Business and Administration; at least 40%, to courses offered by the College of Business and Administration.

Multiple Majors in Business. Business majors may choose to complete two or more of the six majors offered by the college. While all requirements of each major must be satisfied, this can usually be accomplished through judicious use of electives without extending anticipated graduation dates beyond one semester. All majors will be noted on the diploma issued on completion of the Bachelor of Science degree.

Special Majors. Students with special interests or needs which cannot be met by any of the majors offered by the college may participate in designing their own programs under the special major program. Examples of such programs include those designed to prepare graduates for careers such as managers of airports, hospital administrators, and business consultants. To support a growing trend among students to utilize the special major to prepare themselves for careers in small business management, the college has added to its offerings such courses as Administrative Sciences 350, Finance 350, and Marketing 350. Special major programs must be coherent and unified and have as a sponsor a member of the teaching faculty of the college. All Southern Illinois University at Carbondale and college requirements must be met.

General Studies Courses Prescribed for Business Majors

- Area A: None
- Area B: GSB 202 and Economics 214 (an approved General Studies substitute)
- Area C: None
- Area D: Mathematics 139 or 116 (approved General Studies substitutes) and GSD 152 or 153. (Administrative Sciences 302, an approved substitute in Area D, may be substituted for GSD 118.)
- Area E: None
- These hours count toward partial fulfillment of General Studies Requirements of 45 semester hours.

Professional Business Core. The professional business core, required of all College of Business and Administration students, is comprised of the following courses:

Courses	Semester Hours
Accounting 221, 222	6
Administrative Sciences 208, 304, 318, 481	13
Computer Science 212 or Electronic Data Processing 217	3
Economics 215	3
Finance 320, 370 ¹	6
Marketing 304, 305	6
Mathematics 140 or 117 ²	4-5
Business-prefix (ACCT, ADSC, ECON, FIN, OR MKTG) courses outside the major	6
Total	47-48

¹The combination of Finance 271 and 372 may be substituted for 370.

²Mathematics 150 may be substituted for 140 or 117.

College of Communications and Fine Arts

C. B. HUNT, JR., *Dean*

Departments: Cinema and Photography; Radio-Television; Speech Communication; Speech Pathology and Audiology; Theater

Schools: Art; Journalism; Music

The College of Communications and Fine Arts offers the following majors leading to the Bachelor of Science degree:

- | | |
|------------------------|--------------------------------|
| Journalism | Speech Communication |
| Cinema and Photography | Speech Pathology and Audiology |
| Radio-Television | Theater |

A student with special personal and professional goals, which cannot be met by one of these traditional majors, is encouraged to design a special major. The requirements for the various majors and for special majors are listed in the next chapter.

In the communications fields listed above a C average in GSD 101 or an approved equivalent is required.

The Bachelor of Arts degree is offered for a major in the School of Art. The Bachelor of Music degree is offered for a major in the School of Music.

There are specific requirements for admission to the major in the School of Art. Students considering enrolling in the school should make appointments with the chief academic adviser to determine eligibility for the studio and studio crafts specializations for the designated major.

Faculty of the college are engaged in research in mass communications and provide consulting and other services to area schools, newspapers, and radio and television stations. A number of special events are presented each year, including lectures by noted artists, musical ensembles, dance recitals, dramatic presentations, and art exhibitions.

The Broadcasting Service operates WSIU (FM), a public radio station, WSIU-TV, Channel 8, a public television station, both in Carbondale, and a second public television station, WUSI-TV, Channel 16, at Olney. The Broadcasting Service also operates a Radio Tape Network, distributing programs to radio stations.

Administrative offices of the college are located in the Communications Building, which includes the newest theater on campus along with broadcasting facilities, film production facilities, and the office of the *Daily Egyptian*.

College of Education

ELMER J. CLARK, *Dean*

Departments: Curriculum, Instruction, and Media; Educational Leadership; Guidance and Educational Psychology; Health Education; Higher Education; Physical Education; Recreation; Special Education; Vocational Education Studies

The College of Education offers the following programs¹ leading to the Bachelor of Science degree:

Agricultural Education	Journalism
Art	Language Arts and Social Studies
Biological Sciences	Mathematics
Botany	Music
Business Education	Occupational Education
Chemistry	Physical Education
Classical Studies (To teach Latin)	Physics
Early Childhood Education	Political Science
Economics	Recreation
Elementary Education	Russian
English	Secondary Education ²
French	Social Studies
Geography	Spanish
German	Special Education
Health Education	Speech Communication
History	Speech Pathology and Audiology
Home Economics Education	Zoology

¹In addition to programs offered almost entirely within the College of Education, certain programs are offered in cooperation with the College of Liberal Arts (e.g., mathematics, economics) or with the College of Communications and Fine Arts (e.g., art, music), School of Agriculture (agricultural education), and the College of Science (e.g., biological sciences, chemistry).

²This is not an academic major. Persons planning to teach in secondary schools should refer to the curriculum, instruction, and media section of this catalog for a listing of academic majors and minors.

The College of Education also grants the Bachelor of Music Education degree.

Preparation of teachers at all levels and in all areas of instruction in the public schools from preschool education through high school is the special function of the College of Education. In its graduate offerings the efforts of the College of Education include professional work for prospective college teachers and administrators and several specializations in elementary and secondary school administration and supervision.

For most undergraduate students preparing to teach in high schools, the

subject-matter courses will be taken in the other colleges and schools of the University, and the professional preparation for teaching, including student teaching, will be taken in the College of Education. Graduates of the College of Education receive the Bachelor of Science or the Bachelor of Music Education degree.

Students who wish to become principals or supervisors in the public schools take graduate work in the Department of Educational Leadership. The department's major emphasis is on graduate work, but it also participates in providing background for elementary and high school teachers. Likewise, students wishing to pursue a career in teaching or administration in colleges and universities take graduate work in the Department of Higher Education. The department does not offer an undergraduate major in higher education, but it provides courses for undergraduate credit providing a broad background in higher education for elementary and high school teachers.

The College of Education, housed in the Wham Education Building, is the oldest unit of the University, which was originally chartered as Southern Illinois Normal University.

Teacher Education Program

Southern Illinois University at Carbondale is fully accredited by the National Council for Accreditation in Teacher Education (NCATE) and by the State Teacher Certification Board, Springfield. The teacher education program is an all-university function administered by the dean of the College of Education. An advisory committee composed of faculty and students serves in a recommending capacity to the dean.

Teacher education programs, approved by the State Teacher Certification Board, are offered in elementary education, early childhood education, early childhood-preschool education, special education, and in secondary education majors and minors. The special education major offers specializations in education of the behaviorally disordered, education of the mentally retarded, and education of the learning disabled.

Only those students who complete an approved teacher education program are recommended for certification and may receive a teaching certificate through the entitlement process. Further information and procedures for receiving the certificate are explained below under Certification.

ADMISSION TO THE TEACHER EDUCATION PROGRAM

A student may apply for admission to the teacher education program with a minimum of 30 semester hours of completed work and successful completion of Education 201. Students are encouraged to investigate the feasibility of applying for a particular teaching field early in their careers by contacting their advisers or the department in which they wish to major. Application to the teacher education program does not insure admission because quotas have been established for each teaching field due to overcrowding in some areas.

A formal application for admission to the teacher education program must be submitted in person (no applications which are received through the mail will be considered) and must be accompanied by the applicant's most recent grade report. The application forms are available from the office of student personnel services in room 108 of the Wham Education Building and must be approved by that office and the department which offers the desired teaching specialty. If the applicant has an overall grade point average of 2.15 (4.00 scale) or better and is approved by the coordinator of student personnel services after an interview, the applicant will be placed in a pending status for the remainder of that semester. This status permits the student to begin work in the basic professional education courses. At the end of the semester, an applicant may remain in a pending status or may be placed in either provisional or unconditional status. Provisional or unconditional status is conferred by the department offering the teaching specialty and by the coordinator

of student personnel services. A student who is not approved for provisional or unconditional status may continue one additional semester in a pending status. At the end of the second semester the student who fails to be recommended for provisional or unconditional status may not continue in the teacher education program and will receive advice concerning alternative degree programs available. In any case, each applicant will be notified of the current status by being issued a card with the status specified.

DEGREE REQUIREMENTS

In addition to general studies and major requirements, each degree candidate in a teacher education program must complete the course requirements listed below:

1. Four semester hours in health and physical education by taking GSE 201 and two hours of GSE 100-114. These courses should be selected as a part of the general studies requirements.
2. A course in American history or government (GSB 212 or 300 recommended.)
3. The United States and State of Illinois constitution examinations requirement. This requirement for continuing certification in Illinois may be met by taking GSB 212, 300 or 301; by taking a course in American history or political science other than GSB 212, 300 or 301 and passing the constitution test administered by the University; or by presenting written notification from another institution that a course in American history or government has been passed and that the tests have been passed on the constitutions of the United States and the State of Illinois.
4. GSB 202 as a prerequisite for Education 301 in the professional education sequence. GSB 202 should be selected as a part of the general studies requirements.
5. GSD 101 and GSD 117, 118, or 119, and one additional English course (GSC or English department) with a grade of *C* or better in each of the last two courses completed. This requirement is a prerequisite to admission to the professional semester.
6. The professional education sequence listed below. Each of the courses which are part of the program prior to the professional semester must be completed with a grade *C* or better as a prerequisite to admission to the professional semester. Education 201 must be completed prior to admission to the teacher education program.

<i>Professional Education Sequence</i>	24
Decision Component	
Education 201	1
Basic Professional Block	
Education 301	2
Education 302	2
Education 303	2
Education 304a, b, c, d, e, f, g, h	2
Professional Semester ¹	
Education 350	3
Education 400	4
Education 401	8
7. Illinois State Teacher Certification Board general education course distributions in: language arts, science, mathematics, social science, humanities, health, and physical education. Students having questions concerning whether their programs meet certification board requirements should discuss their concerns with their academic advisers.	

¹Concurrent registration in Education 350, 400, and 401 is required during the professional semester.

Certification

A student who is nearing completion of the teacher education program (usually during the last semester) can obtain the forms to make application for entitlement

to certification for the State of Illinois from the dean's office of the College of Education, Wham Education Building, Room 115. Upon completion of the application forms by the student and payment of the certification board fee, the dean's office staff will process the forms with the State Teacher Certification Board and entitlement cards will be sent to the dean's office. When the student's program, including graduation clearance, is completed, the office will mail the cards to the student's permanent address for use in applying for certification through the student's future educational service region superintendent.

The State of Illinois issues through the entitlement process the Standard Elementary Certificate, Standard High School Certificate, Standard Special Certificate, or Early Childhood-Preschool Certificate to students who graduate from an approved teacher education program at Southern Illinois University at Carbondale.

Standard Elementary Certificate. Students planning to teach on the elementary level in the public schools of Illinois register in the College of Education. Requirements for entitlement to the State of Illinois standard elementary certificate may be through the completion of the early childhood (K-3) education program or the elementary education (K-9) program. For further information concerning these programs, see the sections of this catalog titled curriculum, instruction, and media and professional education experiences in Chapter 4.

Standard High School Certificate. Requirements for entitlement to the State of Illinois standard high school certificate and for entitlement to the standard special certificate may be met as explained in the section of this catalog titled curriculum, instruction, and media in Chapter 4. A listing of majors, minors, and other programs approved for certification entitlement purposes at Southern Illinois University at Carbondale is presented there. It is possible for a student to be registered in one of the colleges or schools other than the College of Education and to meet the state requirements for the standard high school certificate or the standard special certificate by using as electives certain prescribed professional education requirements in the College of Education.

Standard Special Certificate. Teaching all grades, kindergarten through grade 12, requires the standard special certificate. As noted above, requirements for entitlement to the standard special certificate may be met in the manner outlined in the section of this catalog titled curriculum, instruction, and media in Chapter 4. Teaching fields for which the standard special certificate is issued include physical education, special education, music, art, and speech pathology and audiology.

Early Childhood-Preschool Certificate. Students planning to teach at the preschool level in public schools or other settings in Illinois register in the College of Education or in the College of Human Resources. The early childhood-preschool program was specifically designed to prepare future teachers of prekindergarten children. For further information concerning the program, see the section of the catalog titled curriculum, instruction, and media in Chapter 4.

School of Engineering and Technology

THOMAS B. JEFFERSON, *Dean*

Departments: Electrical Sciences and Systems Engineering; Engineering Mechanics and Materials; Technology; Thermal and Environmental Engineering

The School of Engineering and Technology offers the following majors leading to the Bachelor of Science degree.

Engineering

Industrial Technology

Engineering Technology

Specific requirements are listed for the various majors offered by the school in the next chapter.

The School of Engineering and Technology provides instruction over a broad spectrum of engineering and technology. Through instruction, research, and consultative services, it services Southern Illinois, the state, and the nation.

Baccalaureate and master's degree in engineering are offered through the cooperative efforts of the three engineering departments. The Department of Technology has responsibility for baccalaureate degree programs of study in engineering technology and industrial technology.

The application of transfer credit from senior institutions to program requirements in the School of Engineering and Technology must be approved by the dean or a designated representative.

Administrative offices of the school are located in the Technology Building near Lake-on-the Campus.

General Academic Programs

CLIFFORD D. HARPER, *Dean*

General Academic Programs includes the following:

General Studies	University Studies
Center for Basic Skills	President's Scholars
Special Majors	President's Degree
Talent Search	Pre-Major Advisement
Special Supportive Services	

Generally concerned with the freshman and sophomore years, General Academic Programs offers academic support programs designed to enhance the possibility of success for all its students. The University Studies program offers B.S. or B.A. degrees. Students interested in General Academic Programs should contact the Dean of General Academic Programs

Center for Basic Skills

The Center for Basic Skills is designed to enhance the success factor for students deficient in basic skills but who demonstrate the potential for college work and to offer services to students interested in improving their reading, writing, and mathematics skills. The center offers courses in the basic skill areas of reading, writing and mathematics. It also offers individualized instruction and tutoring in these areas. Diagnostic testing is available to assist students in analyzing their basic skills competency. Interested students should direct their inquiries to the director of the Center for Basic Skills.

General Studies

The General Studies Division coordinates the many and varied courses which comprise the General Studies Program, the general education requirements for all majors in the University. The General Studies Program is intended to provide graduates of Southern Illinois University at Carbondale with the broad foundation of knowledge necessary for both personal development and for informed action as a member of society. The number and variety of courses allows for adaptation to individual needs.

The General Studies Advisory Council, composed of faculty and student representatives, advises the dean of General Academic Programs on matters of policy and curriculum which determine the direction and development of the program.

Pre-Major Advisement Center

The Pre-Major Advisement Center is the academic home of students who have not

declared a major. The advisers have a wide acquaintance with the many programs offered by the University and are ready to help students to select a suitable area of specialization.

President's Scholar Program

The President's Scholar Program is designed to enable academically talented students to profit from an association with each other; to achieve maximum flexibility within the framework of the general University curriculum; and to take fullest advantage of the talents and resources of the University. The President's Degree Program, an option available to students interested in pursuing interdisciplinary studies, is also important for maximizing curricular flexibility (see Program Flexibility, Chapter 2).

The staff assists the scholars individually and in groups to obtain the best curricular and extra-curricular conditions for excellent and rewarding academic work. The program has no set format or curriculum; it is intended to provide opportunities for the individually styled education particularly appropriate to superior students.

Test scores and high school standing provide the basis for inviting entering freshmen to participate in the program. Invitations to other students result from superior academic performance at Southern Illinois University at Carbondale. Participants retain the prerogatives of president's scholars throughout their undergraduate years as long as they meet minimum standards of academic performance and fulfill other limited conditions. Participation in the President's Scholar Program is inscribed in the student's official record.

Inquiries about the program should be addressed to the dean, General Academic Programs.

Special Major

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suitable to their special requirements. See the description of the special major in Chapter 4.

Special Supportive Services

This program is designed for students with academic potential who are from indigent, culturally and economically disadvantaged backgrounds and provides an academic support system that will maximize their success. The identification process focuses on modified admissions criteria that emphasizes motivation and requires a personal interview to be admitted. The specialized services offered through this program include but are not limited to providing: (1) personal and career counseling and guidance; (2) curricular and instructional methods in special classes that will enable the participants to complete required and prerequisite courses in a reasonable period of time; (3) a comprehensive tutorial program that will afford program participants an opportunity to compete with sufficient skills at Southern Illinois University at Carbondale; and (4) other special services that are consistent with the goal of recruiting, retaining, and graduating the target population.

Eligible participants must be citizens of the United States and conform economically to federal low-income standards unless they are physically handicapped or speak limited English.

Talent Search

The mission of Talent Search is to encourage full utilization of educational talents in Southern Illinois. It endeavors to find qualified, high-need, out-of-school students and assist them in continuing or renewing their educational efforts.

Inquiries about the program should be addressed to the director.

University Studies Program

The University Studies degree option is intended for those students who want a broad, general education and do not wish to specialize on the undergraduate level. Both the Bachelor of Arts and Bachelor of Science degrees are offered.

Graduate School

JOHN C. GUYON, *Associate Vice President for Research and Dean of the Graduate School*

The Graduate School was organized in 1944. Under the leadership of a graduate faculty of over 900 individuals, research and study by graduate students is promoted through a wide variety of scholarly activities.

It offers the following degrees: Master of Arts, Master of Business Administration, Master of Fine Arts, Master of Music, Master of Music Education, Master of Public Affairs, Master of Science, Master of Science in Education, the Specialist Degree, and the Doctor of Philosophy degree.

The Graduate School is fully accredited by the North Central Association of Colleges and Secondary Schools; its various academic components have been accredited by appropriate state and national accrediting associations. There are sixty programs leading to the master's degree. The specialist degree (sixth year) is offered in four areas within education. There are twenty programs leading to the Ph.D. degree. In addition, the Ph.D. program in education has thirteen different concentrations.

A separate catalog describing admission and graduation requirements for the various programs in the Graduate School may be had by writing to the Graduate School, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. An application for admission to graduate study may also be requested from the Graduate School.

College of Human Resources

STANLEY H. SMITH, *Dean*

Divisions: Comprehensive Planning and Design with academic programs in Clothing and Textiles, Interior Design and Design; Human Development with academic programs in Child and Family, Family Economics and Management and Food and Nutrition; Social and Community Services with academic programs in Black American Studies, Community Development and Social Welfare; Center for the Study of Crime, Delinquency, and Corrections; Rehabilitation Institute

The College of Human Resources offers the following majors leading to the Bachelor of Science degree:

Administration	Food and Nutrition
Child and Family	Interior Design
Clothing and Textiles	Social Welfare
Family Economics and Management	

It also offers a major leading to the Bachelor of Arts degree in design.

The specific requirements for each of these majors are listed in the next chapter.

Minors are offered in administration of justice, black American studies, clothing and textiles, community development, and consumer studies.

School of Law

HIRAM H. LESAR, *Dean*

The school offers a three-year program leading to the Juris Doctor (J.D.) degree. The school received provisional accreditation from the Section on Legal Education of the American Bar Association during its first year of operation, so that all students enrolled are eligible to take state bar examinations required for admission to the bar.

Three buildings have been remodeled to provide classroom, library, and office space for the School of Law pending completion of a permanent building. Other available resources include an adequate law library collection and a broadly-based University with extensive law-related graduate divisions and other academic units. Because of space limitations, the entering class will be limited to approximately 85 students until a permanent building is completed.

The faculty and student body of the school are of the highest quality, and its curriculum is designed to inculcate fundamental legal concepts and skills which every lawyer must have and which are the hallmarks of the profession of law. In addition to the Socratic — casebook method, other teaching methods, including clinical, are utilized as the subject matter requires. The School of Law catalog can be obtained by writing the School of Law.

College of Liberal Arts

LON R. SHELBY, *Dean*

Departments: Anthropology; Computer Science; Economics; English; Foreign Languages and Literatures; Geography; History; Linguistics; Mathematics; Philosophy; Political Science; Psychology; Religious Studies; Sociology

The College of Liberal Arts offers the following majors leading to the Bachelor of Arts and Bachelor of Science degrees. Minors are possible in most of these areas. For exceptions, see next chapter.

African Studies ¹	Greek ¹	Latin American Studies
Anthropology	Classical Studies	Linguistics
Asian Studies ¹	East Asian Civilizations ¹	Mathematics
Comparative Literature ¹	French	Music ²
Computer Science	German	Philosophy
Earth Science ¹	Japanese ¹	Political Science
Economics	Latin ¹	Psychology
English	Russian	Religious Studies
Foreign Languages	Spanish	Sociology
and Literatures	Geography	Speech Communication ²
Chinese ¹	History	Theater ²
		Uncommon Languages ¹

¹Minor only.
²Liberal arts major, not professional major.

The College of Liberal Arts provides (1) instruction in basic subject matter courses of General Studies; (2) opportunity for majors in a variety of subject areas; (3) electives not available in other instructional units of the University; (4) courses offered through the Division of Continuing Education; (5) graduate-level instruction for students pursuing higher degrees than the baccalaureate; (6) preprofes-

sional training needed for admission to specialized schools such as law and theology.

The Bachelor of Arts or Bachelor of Science degree is granted to students who fulfill requirements for graduation from the College of Liberal Arts. The courses of study outlined by the departments determine the degree awarded.

The diversified offerings of the College of Liberal Arts are designed to help the students develop the ability to seek and weigh evidence and to think critically and independently; a fundamental understanding of the ever changing social, political, and physical environment, and a deeper understanding of mankind, of cultures past and present, and of man's artistic and literary creations. Although a number of post-college options are open to liberal arts graduates, students in the college may prepare directly for teaching at the secondary level by including in their studies certain professional courses offered by the College of Education.

ACADEMIC REQUIREMENTS

To receive a degree from the College of Liberal Arts students will be expected to fulfill the following requirements:

1. University requirements including those relating to General Studies, residency, total hours completed, and grade point average.
2. College of Liberal Arts students must complete one year of not less than six semester hours of a foreign language. In addition to General Studies requirements, students must complete one course in either mathematics or computer science and one course in English composition. General Studies courses may be used to satisfy the latter requirement only with prior approval of the dean.
3. Successful completion of requirements in an approved major in the College of Liberal Arts.
4. At least 40 hours of course work at the 300- or 400-level.

The above stated requirements leave a large number of elective courses, so that students have maximum flexibility in planning their overall program of study at the University. To assist students in planning their program, the college maintains an academic advisement office in Faner Hall 1229, as well as faculty advisers in each department. Students are urged to consult with these academic advisers on how they can best utilize this elective part of their program to fulfill their intellectual interests and to prepare for particular career opportunities. A carefully planned minor field or second major field opens up many career opportunities for the liberal arts major that might otherwise be missed. These minor fields may be taken within a single department, they may be interdepartmental, or they may be intercollegiate. Students interested in combining a liberal arts degree with vocational or job-oriented specialization fields should inquire about the LibTech program that has been arranged between the College of Liberal Arts and the School of Technical Careers. For further information, please contact or write the dean of the College of Liberal Arts. Students who are planning to attend graduate school or one of the professional schools such as law or medicine should consult with their advisers on how best to plan their undergraduate curriculum with these goals in mind.

PRE-LAW

The pre-law student may choose any major course of study as long as it is intellectually demanding and tests the student's aptitude for analytical thinking.

The College of Liberal Arts has a pre-law advisory committee to help students plan a useful, interesting curriculum aimed at improving the skills important for the study of law. This committee is made up of faculty members of various University units who are lawyers or who have particular expertise in fields important to law and pre-law preparation. The Committee holds a Pre-Law Night each fall, where opportunities are presented for open discussion of undergraduate cur-

riculum and the law school admission process, these discussions being led by students in the Southern Illinois University at Carbondale School of Law. Also, a mock Law School Admission Test (LSAT) is given twice a year free of charge under regular test conditions and for the full time span required for the official LSAT.

Among courses especially recommended for pre-law students is Liberal Arts College (LAC) 105, Law in American Society, a special interdisciplinary course offered every fall semester. The Department of English regularly offers special pre-law sections of intermediate and advanced expository writing as well as a course which stresses precision in writing. Also recommended are courses in public speaking and accounting.

The staff of the liberal arts advisement center is available to all students who have an interest in pre-law studies and will be glad to discuss with students their interest in law school.

School of Medicine

RICHARD H. MOY, *Dean and Provost*

Southern Illinois University School of Medicine was established in 1970 in response to a need in Illinois for increased opportunities for education in health fields and the more encompassing need for improvements in the health care delivery system. To have the broadest impact possible on health care in central and southern Illinois, the school is deeply engaged in training men and women who will become physicians. It also emphasizes continuing education and is a center of health care planning and expertise.

The first class of forty-eight students was admitted for instruction in June, 1973. Beginning classes will increase in size until the anticipated maximum of 96 students is reached. Preference is given to applicants from central and southern Illinois intending to practice medicine in the state. Inquiries on admission should be addressed to the Committee on Admissions, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Illinois 62708.

The curriculum runs twelve months a year for three years. The first year program, conducted on the campus of Southern Illinois University at Carbondale, has primarily a basic science orientation, but with significant clinical input from the beginning. The second year, at Springfield, is about equally divided between laboratory and clinic; and the third year, also at Springfield is almost exclusively clinical.

Carbondale facilities include extensive and well-equipped laboratories at Southern Illinois University at Carbondale, Memorial Hospital of Carbondale, and public and private clinical facilities. In Springfield, St. John's Hospital and Memorial Medical Center, each having about 700 beds, are utilized. The new Medical Instructional Facility in Springfield accommodates 200 medical students.

College of Science

NORMAN J. DOORENBOS, *Dean*

Departments: Botany; Chemistry and Biochemistry; Geology; Microbiology; Physics and Astronomy; Physiology; Zoology

The College of Science offers majors, and in most cases minors, leading to the Bachelor of Arts and Bachelor of Science degrees in the following fields of study:

Biological Sciences

Botany

Chemistry

Engineering Biophysics

Geology

Mathematics

Microbiology
Physics

Physiology
Zoology

A minor in earth science is also offered.

Included in the curriculum of each department are survey courses that provide an introduction to the subject matter of that discipline while fulfilling the General Studies requirements of Southern Illinois University at Carbondale. These courses assist all students to develop an understanding and appreciation of the impact of science on one's daily life. Elementary and advanced courses are provided to prepare students for professional employment or entrance into professional and graduate schools. Graduate training is also provided by each of the science departments leading to the M.S. or Ph.D. degree. The research interests of the faculty are extremely diverse.

Students in the College of Science may prepare for teaching at the secondary level by fulfilling the additional requirements of the College of Education. The Bachelor of Arts or the Bachelor of Science degree is granted to students who fulfill the requirements for graduation as given and the requirements of the departments in which the students declare their majors.

Each department has specific requirements for students to major in the selected field of interest, but the College of Science has some minimum general requirements listed below.

ACADEMIC REQUIREMENTS

None of these general academic requirements may be satisfied by taking the required courses on a Pass/Fail grading basis.

Biological Sciences. Six semester hours in courses offered by the biological sciences departments in the college, with the proviso that this requirement cannot be satisfied in whole or in part by General Studies courses, but may be substituted for the latter in meeting the General Studies requirements.

Foreign Language. The foreign language requirement can be met by one of the following: (a) passing an 8-hour 100-level sequence in one language; (b) by earning 8 hours of 100-level credit in one language by proficiency examination; or (c) completing three years of one language in high school with no grade lower than C. Tests administered during advisement of new students will determine whether proficiency credit is allowable.

A student whose native language is not English may use the native language to satisfy part or all of the science foreign language requirement at Southern Illinois University at Carbondale. If the language is presently taught at Southern Illinois University at Carbondale, academic credit may be earned. If the language is not presently taught at Southern Illinois University at Carbondale, no credit is given, but partial or full satisfaction of the science foreign language requirement may be granted if the student's major department so recommends. A student whose native language is English but who has learned another language not taught at Southern Illinois University at Carbondale may qualify without credit for partial or full satisfaction of the science foreign language requirement under certain circumstances, including formal recommendation by the student's major department and availability of an examiner and examination materials within the Department of Foreign Languages and Literatures. For information, the student should consult the College of Science advisement center.

Mathematics. The mathematics requirement can be met by (a) passing Mathematics 110a, b or 111 or its equivalent or Mathematics 140, or (b) completing three years of high school mathematics with no grade lower than C and achieving a

score on the University's Mathematics Placement Test which allows the student to enroll directly in Mathematics 150.

Physical Sciences. Six semester hours in courses offered by the physical science departments of the college, with the proviso that this requirement cannot be satisfied in whole or in part by General Studies courses, but may be substituted for the latter in meeting the General Studies requirements.

General Requirements. At least 40 hours of the student's 120 hours for graduation must be at the 300 or 400 level. The total may include transfer credit for courses judged by the department involved to be equivalent to its upper division courses. For transfer students submitting only the last year in residence, at least 24 of these must be at the 300 or 400 level.

PREPROFESSIONAL COURSES

A student planning a professional career in any of the following fields should register in the College of Science immediately: dentistry, medical technology, medicine, pharmacy, physical therapy, veterinary science. Preprofessional students should refer to the baccalaureate degree section in this chapter.

School of Technical Careers

ARDEN L. PRATT, *Dean*

The School of Technical Careers is a unit unique to Southern Illinois University at Carbondale among institutions of higher learning. It was created in 1973 to offer a bold new Bachelor of Science degree program tailored for occupationally-oriented students as well as associate degree career and technical programs formerly conducted by the Vocational-Technical Institute.

The educational objectives of the school include:

- 1. Associate degree programs structured for entry of new students or free flow of students from other institutions or from within other units of the University;
- 2. Post- or extra-associate specializations in occupational areas related to these programs; and
- 3. Baccalaureate programs for the student whose career goals are not met by existing or traditional college programs.

Associate degree programs are offered in four general areas: allied health and public services, applied technologies, aviation technologies, and graphic communications.

On the baccalaureate level, the School of Technical Careers has only one Bachelor of Science program, but requirements for that program are as varied as the number of students enrolled because each has an individually tailored course of study. Each student must meet University requirements but, within that framework, is free to build, in consultation with advisers, a program that suits exactly the particular career goals chosen.

Currently, the School of Technical Careers offers majors leading to the Associate in Art or Associate in Applied Science degrees. These are:

Allied Health Career Specialties	Construction Technology—Building
Architectural Technology	Construction Technology—Civil
Automotive Technology	Correctional Services
Aviation Technology	Dental Hygiene
Avionics Technology	Dental Laboratory Technology
Commercial Graphics—Design	Electronic Data Processing
Commercial Graphics—Production	Electronics Technology

Law Enforcement
Mortuary Science and Funeral
Service
Nursing
Photographic and Audio-Visual

Technology
Physical Therapist Assistant
Secretarial and Office Specialties
Tool and Manufacturing Technology
(Numerical Control)

A number of these majors offer third year post-associate specializations to provide the student who holds the associate degree with additional competencies.

Requirements for associate degree programs are listed in Chapter 4 of the Undergraduate Catalog.

Requirements for the baccalaureate program also are discussed in Chapter 4, but since these differ completely among individual students, persons interested should contact the baccalaureate degree adviser in the School of Technical Careers.

Facilities of the School of Technical Careers are located on the Vocational-Technical Institute campus near Carterville, on the Carbondale campus, and at the Southern Illinois Airport. Programs housed in temporary facilities on the Vocational-Technical Institute and Carbondale campuses are expected to be located in a new building on the Carbondale campus within two years. Information on associate and post-associate programs is available from the office of Information Services, 908 South Wall street in Carbondale. Information on baccalaureate programs may be obtained through the office of the dean at 908 South Wall street in Carbondale.

4

Undergraduate Curricula and Courses

This chapter contains information about the undergraduate curricula and courses offered by Southern Illinois University at Carbondale. The course descriptions for undergraduate courses are included, but those courses offered for graduate students list only the credit hours and title of the course. The descriptions of graduate level courses are included in the Graduate Catalog. Chapter 1 of this bulletin includes a listing of the undergraduate majors and minors offered. Those majors and minors are included in this chapter with a description of the requirements for their completion. This chapter is arranged in alphabetic order.

Abbreviations Used in this Chapter

Specific courses are identified by three-digit numerals plus, in some cases, a single letter. The first numeral of the three indicates the level of that course. A letter following the three numerals may indicate a *part* of a course (where *a* means first part, *b* means second part, etc.) or may identify the topics or subject areas specified in courses such as readings or special problems. A numeral or numerals separated from the identification number by a dash indicates the number of hours of credit received in the course. For example, Mathematics 110-5 (3,2) indicates a first-level, two-part course of 5 hours in the Department of Mathematics. The two parts of the course may be referred to as Mathematics 110a, b.

The five areas of General Studies are referred to as GSA, GSB, GSC, GSD and GSE. The three-digit numerals following these abbreviations function similarly to those noted above.

In the areas of this chapter which describe course requirements for programs, numerals in parentheses in columns of figures pertain to semester hours which satisfy more than one requirement. They are in parentheses to avoid their being added to the total of the column, which would be a duplication of hours required. For example, under food and nutrition, GSA 115 and 209 satisfy part of the General Studies requirements and contribute 6 hours toward the 45 hours required. The 6 hours is also required for the major in food and nutrition, but does not contribute to the printed total of 53-54 hours.

Course Descriptions

The first entry for each course is a three digit numeral plus, in some cases, a single letter which together with the subject area, serves to identify the course. The first digit indicates that the course is for freshmen, sophomores, juniors, seniors, and graduate students only, depending on whether the digit is 1,2,3,4, or 5 respectively. If the first digit is 0, the course is not properly in the above categories.

Following the identification number are a dash and another number, which indicates credit allowed for the course. The maximum credit may be variable, such as Accounting 390-1 to 4. Variable credit courses which have a number of credit hours per semester or per topic which is limited, have those limits in parentheses

following the total maximum hours of credit. An example of such a course is Administration of Justice 492-2 to 6 (2 to 3 per semester). Where courses are formally divided into parts, such as History 330-6 (3,3), the two or more numerals separated by commas in parentheses indicate the credit allowed for each part of the course.

Next is the title, followed by description of the course. If certain requirements must be satisfied before enrollment in a course, they are listed as prerequisites. If a course is a part of the undergraduate pass/fail system, it is so indicated by the term "Elective Pass/Fail" or "Mandatory Pass/Fail."

Not all of the courses described here are offered every semester or even every year. To determine when and where a course is to be offered, consult the schedule of classes obtainable from University Graphics, Southern Illinois University, Carbondale, Illinois 62901. When requesting a schedule, please specify *semester*.

General Studies Courses

MAN'S PHYSICAL ENVIRONMENT AND BIOLOGICAL INHERITANCE (GSA)

Courses

101-3 Conceptual Insights Into Modern Communication Systems: From Hi-Fi Sound to Laser Beams. The basic laws of nature will be presented in order to understand the functioning of modern communications such as high fidelity sound, televisions, satellites, and laser beams. Strong emphasis on consumer education in the field of home entertainment will be developed in both the lectures and labs.

106-3 Chemistry for Non-Science Majors. Selected discussions of inorganic, organic and biological chemistry and their relationship to our standard of living and quality of our health and environment. Three lectures with one voluntary help session per week.

107-1 Chemistry Laboratory for Non-Science Majors. Techniques of preparation, purification, measurement, and study of elements and compounds that are important in modern living. One three-hour laboratory per week.

110-3 Earth Science. Earth and its major domains with Earth's substances and processes emphasized. Lecture, laboratory. Laboratory manual \$3.00. Elective Pass/Fail.

115-3 Biology. For students with a weak biology background or for students who are non-biology majors but have an interest in gaining general knowledge of man's biological inheritance. An introduction to the evolutionary development of man's physical and biological environment, to the biological problems and processes of a model living organism, and to the role of biological research in the world of the future. Lecture-laboratory. Laboratory manual \$4. Elective Pass/Fail.

125-3 Systems Nature of Man's World. (Same as GSB 125.) Introduction to the elements of the systems view of the world. The impact of the systems reality on modern man's life and its simplifying power in science will be stressed.

202-3 Space Science—Astronomy. The solar system, our galaxy, and the universe beyond. Fundamental concepts of the physical sciences as applied in astronomy to our space environment. Lectures will be supplemented by demonstrations and by occasional hours of individual or supervised astronomical observations. Not open to students who have had Physics 302 or GSA 102B. Purchase of exercise sheets under \$1.00. Elective Pass/Fail.

208-1 Laboratory Experiences in Physiology. Laboratory course to be taken concurrently with GSA 209. Provides experiences with small animal experimentation and measurements made on the human subject. One two-hour laboratory per week. Prerequisite: concurrent enrollment in GSA 209.

209-3 Principles of Physiology. A comprehensive introductory analysis of the functional machinery of the living body, with emphasis on human physiology. Three lecture hours per week. Not open to students who have taken Physiology 210. Prerequisite: a background in biological science recommended. Elective Pass/Fail.

211-3 Geology of the National Parks. A study of the geologic histories of selected national parks and national monuments. Lectures relate the natural scenic features to geologic processes that have occurred in forming the scenic features. Elective Pass/Fail.

220-3 Survival of Man. (Same as GSB 220.) Topics discussed include the interrelated technological and sociological aspects of the environmental problems concerned with population, food, ecology, water and solid waste. Emphasis is placed on understanding the total context in which environmental problems must be considered. GSA/B 220 and GSA/B/C 221 may be taken independently; if both 220 and 221 are taken, only three hours may be counted

in a given area of General Studies, but three hours may be counted for the three additional hours required for areas A, B, and/or C.

221-3 Survival of Man. (Same as GSB 221 and GSC 221.) Topics discussed include the interrelated ethnological, technological, sociological, moral and ethical aspects of the environmental problems concerned with technology, air pollution, urbanization, natural resource utilization, agriculture and aesthetics. Emphasis is placed on understanding the total context in which environmental problems must be considered. GSA/B 220 and GSA/B/C 221 may be taken independently; if both 220 and 221 are taken, only three hours may be counted in a given area of General Studies, but three hours may be counted for the three additional hours required for areas A, B, and/or C.

230-3 Energy and the Future. Lectures on power, energy, and related concepts. Review of current energy resources and use patterns and outlook for changing patterns including overview of new energy conversion technology and environmental impact of energy use. Look at energy from global viewpoint to identify future limits on energy usage. Voluntary class discussions and student paper presentations.

240-3 Ecology and Man. Fundamental biological and ecological processes important in the individual, population, and community life of organisms including man are discussed in the context of ecological systems. Lectures are supplemented by one hour of laboratory, field work, or other student options. Elective Pass/Fail.

302-3 Psychobiology. A survey of the role of biological processes in the behavior of humans and other species. Topics covered include structure and function of the nervous system, behavioral endocrinology, psychopharmacology, sensorimotor functions, sleep and waking, motivation, emotions, reinforcement, psychopathology, learning and memory.

303-3 Ferns, Trees, and Wild Flowers. Field identification and natural history of local plants. One lecture and four hours of field work per week.

312-3 Conservation of Natural Resources. A study of man's use and misuse of natural environment emphasizing the ecological perspective.

313-2 Evolution. Principles and processes of the evolution of living things including man.

314-2 Human Heredity. Principles of heredity as related to man, with emphasis on the effects of environment on his biological inheritance.

321-3 Fossils: Keys to Ancient Life and Environments. A knowledge of the origin, development, and distribution of Ancient Life, environments and relations of life to environments is gained through the study of fossils and associated rocks. Examples of ancient environments, their fluctuations and changes are compared with fluctuations and changes in modern environments. Elective Pass/Fail.

322-3 Earth's Mineral Resources. Acquaints the nonprofessional with the origin, distribution, character, and value of the common minerals and rocks in the Earth's crust. Purchase of lab manual and student-financed field trips. Elective Pass/Fail.

323-3 Introduction to Gems and Gem Materials. Geologic environments, aesthetic considerations, and economic values of different gems are discussed in lecture. Identification, evaluation, and preparation of gemstones will be presented in laboratory. Additional charge for materials: \$10.00. Elective Pass/Fail.

324-3 Water: The Friend and Enemy of Man. A practical treatment of the relationship between water, surface processes and daily living. Case histories demonstrate why water related disasters occur, including flooding, landslides, beach erosion and subsidence. Water supply and its legal and economic problems for individual property owners and communities are examined. Elective Pass/Fail.

330-3 Weather. Introduction to constituents and processes in the Earth's atmospheric environment; major atmospheric variables; major features, characteristics of the atmosphere; elemental principles of forecasting; meteorological causes of atmospheric pollution. Interaction of processes and variables to define climate for various regions of the world. Charges not to exceed \$5 for field trips, \$2 for supplies. Elective Pass/Fail.

356-3 Creativity in Science and Technology. Evolution from need to knowledge, and from analysis to synthesis. The social dimension of science and its role in the advancement of humanity. Evolution of scientific thought and technology.

361-3 Acoustics of Music. A survey of the production, transmission, and reception of sounds with emphasis on musical sounds including the operation and characteristics of all major instruments including the voice. Related areas include respiration; the hearing process; binaural, stereophonic, and quadraphonic sound; disc, tape, and optical recording; sound reproduction systems; architectural acoustics including design, construction, and materials; utilization of sound in other disciplines such as business, agriculture, medicine, the animal kingdom; acoustical laboratory equipment and research procedures; environmental sound pollution. Many guest specialists appear. A term paper or project of the student's choice dealing with sound provides for more intensive study in his primary areas of interest. No special training in music, science, or mathematics is required. Cost of textbook is approximately \$3.

399a-12 Folk Arts, Crafts, and Uses of the Environment—Expressions of Living in the Southern Appalachian Region. (Same as GSB and GSC 399a.) A broad team-taught interdisciplinary learning experience designed to place students in direct contact with a unique region and its people in order to expand the student's capacity to make effective

decisions in society through the study of the functioning of a different society interacting with its environment. Summer only.

MAN'S SOCIAL INHERITANCE AND SOCIAL RESPONSIBILITIES (GSB)

Courses

103-3 Geography of Man's Environment. Provides students with basic information on the nature and problems associated with the major environments of the world. The geographical distribution of climate and physiographic elements of world environments are described. The problems of economic development, environmental change, and the relation of man to the land in the major regions of the world are investigated. Purchase of materials in the range of \$4.00.

104-3 Man and His World: Anthropology. The main ideas of the anthropological approach to the study of man. Anthropology's relevance to the student in today's world shown through examples drawn from the subject matter of the field.

105-3 The Contemporary World. An examination of the fundamental problems of the contemporary era as seen in historical perspective. No credit toward the major in history. Purchase of books and materials in the range of \$7.00. Elective Pass/Fail.

109-3 Introduction to Black America. (Same as GSC 109.) A survey course designed to expose the student to various aspects of the Black experience. Aspects included are history, literature, theology, the arts, etc. The textbook is a collection of essays designed for use especially in this course and is supplemented by guest lecturers and audiovisual materials.

111-3 Economic Development of Western Civilization. Emphasizes the underlying trends and forces that have led to the present economic structure of the developed world. The commercial and industrial revolution as well as the rise of the market system and capitalism are treated in their historical context. Elective Pass/Fail.

112-3 Comparative Economic Systems. Introductory analysis of capitalism, socialism, communism as social systems. Each system is examined in terms of its economic, political and social organization. Elective Pass/Fail.

125-3 Systems Nature of Man's World. (See GSA 125.)

135-3 The Third World: The African Model. A study of the Third World through a focus on Africa as a model; emphasis on the cultural traditions, the impact of the West, and the problems facing Third World nations today.

160-2 Mass Communication in Society. Acquaints non-journalism students with the interrelationships between the mass media and other aspects of American society, examines the operation and potential development of the mass media, as well as the important roles of the mass media in our society.

202-3 Introduction to Psychology. An examination of the variables related to the origins and modifications of human behavior using the viewpoints and techniques of contemporary psychology. Purchase of syllabus (about \$3.00 to \$3.50).

203-4 The Sociological Perspective. An examination of the variables related to the acquisition of human behavior and interaction in social institutions. Elective Pass/Fail.

206-3 Applied Child Development. An interdisciplinary study of the changes that take place in a child as he passes from birth to maturity. Purchase of book in the range of \$5.00.

207-3 Contemporary Political Ideologies. A survey of recent political ideologies: Nationalism, Socialism, Communism, Liberal Democracy, Conservatism, Christian Socialism, Fascism, Contemporary Liberation Movements. Elective Pass/Fail.

211-3 Contemporary Economics. A study of the basic economic problems confronting America and the world today. This course gives students a broad latitude in the structuring of topics to be discussed. Problems are discussed from the point of view of public policy as well as theory. Elective Pass/Fail.

212-4 Introduction to American Government and Politics. An introduction to American government including the cultural context, structure and functions of the national political system, and some attention to subnational politics. Elective Pass/Fail.

220-3 Survival of Man. (See GSA 220.)

221-3 Survival of Man. (See GSA 221.)

230-3 Emergent Societies and Alternative Life Styles. Familiarization with some of the anthropological literature pertaining to newly emergent social trends in a variety of cultures.

231-2 The American Educational Systems. A comprehensive study of the nature and purpose of education in the United States and of how our schools are organized, financed, and conducted.

250-3 Introduction to Comparative Government and Politics. A general introduction to the comparative study of political systems with focus on selected contemporary states. Elective Pass/Fail.

255-3 Regional Geography of the United States. A survey of environmental, economic, and historical factors and problems in the development of the United States and its regions. Some attention given to the United States in world perspective.

270-3 Introduction to International Relations. A study of world politics. The cause of international conflict and conditions of peace. Elective Pass/Fail.

299c-3 The Changing World of Work. An interdisciplinary course exploring future manpower requirements for a changing society. Special emphasis on society's needs, factors influencing the individual's job preference, and probable employment opportunities. No prerequisite. Elective Pass/Fail.

299d-2 The High Price of Food. Understanding various forces or components affecting food prices; examination of how changes in these components affect quantity and quality of food; discussion of rational consumer action in matters pertaining to food prices. Elective Pass/Fail.

299e-3 Values, Systems, and Society. (Same as GSC 299e.) Values and ethics in evolutionary systems and cultural perspectives will be critically analyzed. A review of the basic problems of survival and further evolution of civilization.

300-3 Origins of Modern America, 1492-1877. A general survey of the political, social, and economic development of the United States from 1492 to 1877. Purchase of books and materials in the range of \$7.00. Elective Pass/Fail.

301-3 Modern America from 1877 to the Present. A general survey of the political, social, and economic development of the United States from 1877 to the present. Purchase of books and materials in the range of \$7.00. Elective Pass/Fail.

305-3 Personal Finance. An introduction to the problems of personal financial asset management, including income and expense budgeting. Emphasis also placed on consumer credit, insurance, investments, home ownership and taxation. Not open to students with majors in the College of Business and Administration. Elective Pass/Fail.

310-1 to 6 (1 per semester) Current Events. Contemporary events in the modern world and their treatment in the newspaper and periodical press. May not be counted toward the journalism major. May be repeated to a maximum of six hours, but only three hours may apply to GSB requirements. Students are required to read Newsweek magazine each week. A reduced-price subscription with special delivery arrangement is usually arranged.

321-3 Socialization of the Individual. A study of the social process in which individual native capacities are shaped and developed through interaction with social groups from childhood to old age. Elective Pass/Fail.

325-3 Race and Minority Relations. An analytical study of the status of racial, ethnic, and religious minorities in the United States. Elective Pass/Fail.

330-3 Language and Behavior. A wide-ranging examination of the implications of language study for man's view of himself and his place in the world. Topics deal with the pervasiveness of verbal and non-verbal language in various aspects of modern society. Elective Pass/Fail.

341-3 Marriage as a Social Institution. A sociological examination of interpersonal relationships in contemporary American dating, courtship, and marriage, with an historical and cross-cultural perspective. Elective Pass/Fail.

346-3 Consumer Choice and Behavior. Analysis and overview of consumer behavior, historical as well as present day, with identification of theories related to the choices.

378-3 Introduction to American Foreign Policy. An investigation of the means by which American foreign policy is formulated and executed and an analysis of the most significant challenges confronting America abroad. Elective Pass/Fail.

399a-12 Folk Arts, Crafts, and Uses of the Environment—Expressions of Living in the Southern Appalachian Region. (See GSA 399a.)

MAN'S INSIGHTS AND APPRECIATIONS (GSC)

Courses

100-2 Music Understanding. The aural perception of musical sound events, relationships, and structures. Helps the student to become a more sensitive and perceptive listener. Listening assignments include a wide variety of styles and kinds of music. Not historically oriented. Elective Pass/Fail.

101-3 Introduction to Art. A basic introduction to the theory, meaning, and creation of visual art with emphasis upon interdisciplinary concerns. Two hours lecture and two hours studio per week. Possible incidental fee maximum \$5.00.

102-3 Problems in Philosophy. Introductory survey of some main philosophic problems concerning man, nature, society, and God, as discussed by major Western thinkers. Possible supplementary paperback expense not to exceed \$5. Elective Pass/Fail.

104-3 Moral Decision. Introduction to contemporary and perennial problems of personal and social morality, and to methods proposed for their resolution by great thinkers of past and present. Not open to students who have had GSC 102. Elective Pass/Fail.

107-2 Man, Leisure, and Recreation. Introduction to the meaning, challenges, and problems of leisure. Analyzes leisure's relation to work, education, religion, recreation, and the totality of life. An attempt is made to help students develop insights, values, and attitudes for self-realization and individual fulfillment in his leisure pursuits.

109-3 Introduction to Black America. (See GSB 109.)

200-3 Oral Interpretation of Literature. Beginning study of the oral interpretation of literature: appreciation, analysis, performance. Emphasis is upon literature as human ex-

perience and upon the creative role of the reader as he engages the literary text. Incidental costs not to exceed \$2.00. Elective Pass/Fail.

201-3 Introduction to Drama. Students will read and discuss plays of different types and periods. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

202-3 Introduction to Poetry. Students will read and discuss poems of different types and periods. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

203-3 Introduction to Theatre. A study of theatre as an art form; its historical development; the relationship with the theatre audience; and understanding of the functions of theatre artists; theatre as a source of enjoyment, perception, and communication.

204-3 Meaning in the Visual Arts. Designed to provide students a broad understanding of the history of art and its relation and implications to contemporary culture. Emphasis is placed on the relation of art to all disciplines, historical and contemporary.

205-3 Innovation for the Contemporary Environment. A variety of factors affecting creative individual and small group problem solving and its relevance to the contemporary environment are explored in theory and in practice. Purchase of book \$4.50. Elective Pass/Fail.

206-3 Music as a Creative Experience. Students experiment with various ways of creating musical sound structures, and engage in active, critical listening, as a means to a better understanding of the nature of musical experience. Not historically oriented. Elective Pass/Fail.

207-2 Aesthetics. The structure and importance of the beautiful in nature, society, personality, and the arts. Elective Pass/Fail.

208-3 Elementary Logic. Study of the basic forms of reasoning, with emphasis on the evaluation of arguments encountered in every-day life. Elective Pass/Fail.

210-3 Introduction to Fiction. Students will read and discuss a variety of American and European short stories and novels. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

212-3 Oriental Humanities. The literature, music, drama, visual art, and definitive cultural motifs of Asia, with emphasis on China and Japan. Elective Pass/Fail.

214-3 Oriental Philosophies. Examination of world outlooks and life outlooks of major Oriental philosophic traditions: Hinduism, Buddhism, Confucianism, and Taoism. Elective Pass/Fail.

216-3 Types of Eastern Religion. An introductory study of selected African and Eastern religious traditions, emphasizing their meanings for their respective participants, their socio-political contexts, and their contributions to the religious history of man. Not open to students who have had GSC 215. Elective Pass/Fail.

217-3 Types of Western Religion. Introductory study of the basic phenomena of religion among American Indians, the ancient Greeks, Jews, Christians, and Moslems, emphasizing socio-political-aesthetic contexts and contemporary relevance. Not open to students who have had GSC 215. Elective Pass/Fail.

221-3 Survival of Man. (See GSA 221.)

231-3 Greek Civilization. Women, Men, World: A study of ancient Greeks, their beliefs, values, emotions, literature, history, art, philosophy, against a background of the world they inhabited; i.e., their archaeology and geography. Elective Pass/Fail.

232-3 Roman Civilization. An introduction to the life and culture of ancient Rome by representative readings of Roman drama, history, epic, satire, lyric poetry, epistles, philosophy, against a background of political, social, economic, artistic developments. Elective Pass/Fail.

299e-3 Values, Systems and Society. (See GSB 299e.)

317-3 Recent American Literature. Reading and discussion of American literature since the second World War. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

325-3 Black American Writers. Poetry, drama, and fiction by Black American writers. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

330-3 Classical Mythology. An inquiry into the nature of myth and its relevance today while studying selected myths principally of the Greeks and Romans. Elective Pass/Fail.

335-3 The Short Story. Reading and discussion of short stories by American and European authors. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

349-3 The Cinema. The cinema as a communicative and expressive medium. Study of film types illustrated by screenings of selected films. Not open to cinema and photography majors. Screening fee: \$5.00. Elective Pass/Fail.

363-3 Philosophy of Science. Introductory survey of the nature and significance of scientific method and its applications. Topics include: the role of value judgments in scientific research, the rationality of scientific method, the relation of science to common sense, religious institutions, and technology. Elective Pass/Fail.

365-3 Shakespeare. Reading and discussion of the major plays. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

371-2 Evolution of Jazz. Stylistic characteristics of jazz at various stages of its evolution.

Societies and cultures from which it derived. Orientation is historical, sociological, and stylistic. Elective Pass/Fail.

390-3 Contemporary American Thought. Introductory survey of the main currents of contemporary philosophy in America and their relevance for legal, political, and educational developments. Elective Pass/Fail.

393-3 to 6. Studies in Literature. The subjects of this course vary from section to section and from semester to semester. Students should consult the schedule of classes to learn the specific topics for each section each semester. Prerequisite: GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

399a-12 Folk Arts, Crafts, and Uses of the Environment—Expressions of Living in the Southern Appalachian Region. (See GSA 399a.)

ORGANIZATION AND COMMUNICATION OF IDEAS (GSD)

Courses

101-3 English Composition. Basic principles of sentence structure, paragraphing, and organization. Purchase of handbook in the range of \$4.00 to \$5.00.

104-2 Grammar in Language. Description and explanation of the major grammatical categories and structures found in languages, including English. Consideration of the role of grammar in such topics as the nature, origin, acquisition, and variation of language. Course is designed to give students basic concepts of grammar and show the relationship of grammar to language.

106-0 Elementary Algebra. For students with less than one year of high school algebra, this course serves as the prerequisite for the following courses: GSD 107, 112, 113, and Math 116.

107-4 Intermediate Algebra. Properties and operations of the number system. Elementary operations with polynomials and factoring. Elementary operations with algebraic fractions. Exponents, roots, and radicals. First and second degree equations and inequalities. Functions and graphing. Systems of equations and inequalities. Exponential and logarithmic functions. Prerequisite: one year of high school algebra or GSD 106.

110-2 Economic and Business Statistics. The use and general applicability of statistical techniques and thinking in modern life, with emphasis on business and economic applications, through understanding and using the basic elementary statistical methods. Credit cannot be received for both GSD 110 and GSD 112. Elective Pass/Fail.

112-2 Basic Concepts of Statistics. Illustrates basic concepts of statistical theory. Emphasis on concepts rather than computational techniques. Main topics include data reduction, probability sampling, statistical estimation and decision procedures. Credit cannot be received for both GSD 110 and GSD 112. Prerequisite: one year of high school algebra or GSD 106.

113-2 Introduction to Mathematics. The development of some basic concepts of mathematics and their significance for society. Prerequisite: one year of high school algebra or GSD 106.

117-2 Expository Writing. Practice in the writing of the composition, with emphasis on the logic of organization, demonstration, and expression. Prerequisite: GSD 101 or equivalent.

118-2 Technical Report Writing. An introductory course in technical report presentation both written and oral, in library research methods, and in elementary business correspondence. Prerequisite: GSD 101 or equivalent.

119-2 Creative Writing. Practice in the writing of narrative and poetry. Prerequisite GSD 101 or equivalent.

120-3 Freshman Honors Composition. Some important works in the history of thought by writers such as Plato, Dostoevsky, Freud, and Marx will be read and discussed. The intellectual problems which they raise will become the subjects for essays in which students are required to show mastery of various methods of organizing exposition. This course fulfills the University freshman composition requirement. Prerequisite: top ten percent of the English section of ACT or the qualifying score on the CLEP test.

152-2 Interpersonal Communication. Designed to enable students to better understand and exercise the process of thought formation and expression. Includes both theoretical content and performance sessions which are relevant to the interpersonal communication context.

153-3 Public Communication. Principles of communication as applied to public settings (speaker/audience). Developing research and speaking skills in the preparation and presentation of various types of messages.

199a-1 Library as an Information Source. Designed to expose undergraduate students to the basic concepts and structures of the library. This would enable students to use their knowledge in completing reading and term paper assignments as well as in gaining confidence for independent work in the library.

HUMAN HEALTH AND WELL-BEING (GSE)

Courses

Courses numbered 100-106 are basic or beginning level courses; those numbered 114 are intermediate level. The instructor may have the right to evaluate the skill level of the student at the beginning of the course and reassign the student to the proper level or another activity. Most GSE physical education classes will be offered on a variable credit of one or two semester hours; one-hour courses meet two hours per week or equivalent; two-hour courses meet four hours per week or equivalent. All GSE physical education classes are available Elective Pass/Fail. Students will not be allowed to change from a one-hour to a two-hour section or vice versa after the university drop and add period. Students may not earn one semester hour for attending one-half of the sessions scheduled for a two semester hour course.

Appropriate clothing, as determined by instructor, is required for each class.

100-1 to 4 (1 credit each time) Restricted Physical Education. For physically handicapped students as recommended by Health Service. Elective Pass/Fail.

101-1 to 24 (1 or 2 credits per activity) Aquatics. (a) Beginning Swimming. (b) Intermediate Swimming. Prerequisite: 101a or equivalent. (c) Diving. (d) Skin Diving. Prerequisite: consent of instructor. (e) Scuba Diving. Prerequisite: 101d, special sections fee for field trips. (f) Lifesaving. Prerequisite: pass swim test first day of class, 500 yards, tread water. (g) Canoeing. Prerequisite: pass swim test first day of class, 15 minutes while clothed. (h) Synchronized Swimming. Prerequisite: 101b or equivalent. (i) Aquacises. (j) Water Sports. (k) Kayaking. (l) Sailing. Elective Pass/Fail.

102-1 to 10 (1 or 2 credits per activity) Fitness. (a) Physical Fitness. (b) Relaxation. Prerequisite: consent of instructor. (c) Weight Control. Prerequisite: consent of instructor. (d) Weight Training. (e) Yoga. Prerequisite: consent of instructor. Elective Pass/Fail.

103-1 to 16 (1 or 2 credits per activity) Dance. (a) Square. (b) Folk. (c) Traditional Social. (d) Beginning Contemporary. (e) Intermediate Contemporary. Prerequisite: 103d or equivalent. (f) Ballet. (g) Tap. (h) Current Social. Elective Pass/Fail.

104-1 to 34 (1 or 2 credits per activity) Individual and Dual Activities. (a) Archery. (b) Badminton. (c) Bowling. Lane fee and shoe rental required. (d) Cross Country. (e) Cycling. (f) Fencing. (g) Fly and Bait Casting. Students furnish own rod and reel. (h) Golf. (i) Gymnastics Apparatus. (j) Handball. Glove and ball required. (k) Horseback Riding. Stable fee, own transportation required. (l) Orienteering. (m) Racquetball. Racquet and ball required. (n) Tennis. (o) Track and Field. (p) Stunts and Tumbling. (q) Wrestling. Elective Pass/Fail.

105-1 to 12 (1 or 2 credits per activity) Team Activities. (a) Basketball (Women or Men). (b) Flag Football (Women or Men). (c) Floor Hockey (Women or Men). (d) Soccer (Women or Men or Co-ed). (e) Softball (Women or Men or Co-ed). (f) Volleyball (Women or Men or Co-ed). Elective Pass/Fail.

106-1 to 6 (1 or 2 credits per activity) Martial Arts. (a) Self Defense. (b) Judo. Judo uniform required. (c) Karate. Karate uniform required. Elective Pass/Fail.

114-1 to 4 (1 or 2 per activity) Intermediate Individual and Dual Activity. (c) Bowling. Prerequisite: 104c or equivalent and consent of instructor. (f) Fencing. Prerequisite: 104f or equivalent and consent of instructor. (n) Tennis. Prerequisite: 104n or equivalent and consent of instructor.

201-2 Healthful Living. Personal and community health. Designed to meet general health education needs and to develop wholesome health attitudes and practices in college students. Elective Pass/Fail.

236-2 Nutritional Ecology of Man. Interaction between man and his environment. Emphasis on nutritional implications of our social, biological, and physical surroundings. Purchase of supplies ranging from \$4.00 to \$5.00. Elective Pass/Fail.

240-2 Human Relations Between the Sexes. Explores concepts and issues including development of sexuality, selection of a life partner, premarital sex experience, modern morality and the development of sexual mores, marriage, family planning, reproduction, varieties of sexual expression, and sex education. Elective Pass/Fail.

*Physical education equipment for men includes the following items: T-shirt, shorts, supporter, socks, gym shoes, lock, towel.

Accountancy (Department)

Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information. Such information is required and used by parties external to the business and by management within the business.

The curriculum is designed to prepare a student to assume a professional position as a certified public accountant or to join the management team in industry or government. The curriculum provides a basic understanding of all phases of accounting and permits the student to elect courses to prepare for a particular area of interest.

The various state laws prescribe the requirements for certification as a certified public accountant. In general, the accounting curriculum prepares the student educationally to meet these requirements.

Accounting majors, in addition to meeting the College of Business and Administration's graduation requirement of 2.00 grade point average in business-prefix courses taken at Southern Illinois University at Carbondale, must also achieve a 2.00 grade point average in accounting-prefix courses taken at Southern Illinois University at Carbondale.

Accounting (Major, Courses)

Bachelor of Science Degree, College of Business and Administration

<i>General Studies Requirements</i>	45-46
<i>Professional Business Core (see page 61)</i> ²	47-48
<i>Requirements for Major in Accounting</i>	(6) ¹ + 21
Accounting 321, 322, 341, 365, 486	15
Accounting 432, 442, 453, (choose at least one)	3
Accounting 405, 419, 475, 477 (choose one unless two are chosen above)	3
Economics 315 or Finance 325	(3) ¹
Finance 372	(3) ¹
<i>Electives</i>	5-7
Total	120

¹Hours shown in parentheses are already included in total hours shown for professional business core.

²Accounting majors should substitute the combination of Finance 271 and 372 for Finance 370.

Courses

110-3 Applied Accounting for Technical Careers. An individualized program of instruction designed to acquaint students enrolled in the various technical programs of the School of Technical Careers with accounting applications and procedures common to their area of specialization. Students will be able to demonstrate a basic working knowledge of the standard documents and procedures related to their specific area through the use of business working papers and practice set. Open only to students in the School of Technical Careers. Lecture 2 hours. Laboratory 2 hours.

120-3 Applied Accounting for Technical Careers. A continuation of Accounting 110 for selected curriculum areas. Emphasis in this course will be the continued development of knowledge and skills typically involved in small business management, ownership, partnerships, and cooperations. New areas of study will include automated data processing, cost estimating, and payroll tax procedures through the use of business working papers and a practice set. Lecture 3 hours. Prerequisite: 110.

210-3 Accounting Principles and Control. Prevalent accounting principles and practices employed in business organizations. Accumulation of data and usefulness of reports are considered. Tax implications of business studied. Not open to students with a major in the College of Business and Administration. No credit given for 210 if credit is claimed for 221. Elective Pass/Fail.

219-3 Business Information Laboratory. Laboratory exercises in the uses of computers to solve business problems. Extensive use will be made of on-line real-time terminals as well as batch processing techniques. Construction, manipulation, and maintenance of data files will be stressed. Introduction to manufacturer supplied business and statistics software packages. Prerequisite: 222 or concurrent enrollment, and completion of General Studies mathematics requirement.

221-3 Accounting I. Basic concepts, principles, and techniques used in the generation of accounting data for financial statement preparation and interpretation. Asset liability and owners' equity valuation and their relationship to income determination. No credit given for 221 if credit is claimed for 210. Prerequisite: sophomore standing.

222-3 Accounting II. A continuation of Accounting I with emphasis on the analysis and interpretation of accounting reports including ratios and funds flow analysis. The use of accounting information for managerial planning, control, and decision making through budgeting, cost and variance analyses, and responsibility accounting. Prerequisite: 221.

301-3 Management Accounting. Emphasizes the use of accounting information for planning, control, and decision making through budgeting models, cost-volume-profit analysis, responsibility accounting, relevant costing procedures and quantitative techniques. Prerequisite: two semesters of accounting and consent of department.

309-2 Individual Income Tax. Preparation of income tax returns. Federal income tax law as applied to individuals. Not open to those with a major in accounting. Elective Pass/Fail.

311-1 Corporate Federal Income Taxes. A review of corporate income taxes to include not only rates and dollar amounts but also an appreciation of the different tax impacts possible from similar economic transactions. Not open to accounting majors. Prerequisite: 222. Elective Pass/Fail.

319-3 Computers in Accounting. Electronic data processing techniques and their business applications. Includes functions and limitations of EDP hardware and software, batch versus real time processing, use and structure of files, file maintenance, and an introduction to computer languages used in business. Cost to student of handout materials and supplies used in course \$3. Prerequisite: 222 and knowledge of one computer language.

321-3 Intermediate Accounting I. Current accounting principles and procedures relating to elements of financial reporting. Particular emphasis on current and fixed asset valuation. Prerequisite: 222 and junior standing or consent of department.

322-3 Intermediate Accounting II. Continuation of the study of accounting principles and procedures with emphasis on liabilities, corporate capital, and income determination. Preparation and use of special statements; analysis and interpretation of statements. Prerequisite: 321.

341-3 Cost Accounting. Interpretation and managerial implications of material, labor, and overhead for job order, process and standard cost systems, cost-volume-profit relationships, direct costing, and budgeting. Accounting for complex process production flows, joint and by-products, spoilage, and scrap. Responsibility accounting and reporting. Prerequisite: 222 and junior standing or consent of department.

365-3 Introduction to Taxation. Background, principles, and procedures for the determination of taxable income as a basis for federal income tax. Particular attention is given those aspects which are at variance with usual accounting treatment in the determination of net income. Includes practice in the methodology of tax solutions. Prerequisite: 222 and junior standing or consent of department.

390-1 to 4 Independent Study in Accountancy. Independent study of specialized aspects of accountancy not available through regularly scheduled courses. Prerequisite: 322, 341, 365, and consent of department.

405-3 Accounting for Public Organizations. Financial and managerial accounting concepts peculiar to the planning and administration of public and quasi-public organizations, such as governmental units, institutions, and charitable organizations. Includes the conventional budgetary-appropriation process, as well as some of the more recent accounting developments related to public decision making. Prerequisite: 222.

419-3 Accounting Information Systems. Accounting systems design and installation. The study of accounting information systems, including computer-oriented systems, with emphasis on the information and control functions of the management decision-making process. Prerequisite: 322, 341, Computer Science 212.

432-3 Advanced Tax. Study of income tax problems which arise from sole proprietorship, partnership, corporation, estate, and trust types of organization. Brief study of social security, federal and state estate tax and gift tax. Student does research in source materials in arriving at solutions of complicated problems. Prerequisite: 365.

442-3 Advanced Cost Accounting. Managerial decision making; profit planning and control through relevant costing, return on investment and transfer pricing, determination of

cost behavior patterns, analysis of variances, capital budgeting, inventory models, probabilities, statistical methods, and operations research. Prerequisite: 341.

453-3 Advanced Accounting. Accounting principles and procedures relating to specialized topics, including partnership equity, installment and consignment sales, fiduciaries, international operations, branches, and business combinations. Prerequisite: 322.

475-3 Budgeting and Systems. A study of the application of mathematics, statistics, and the computer to specific budgetary and accounting problems. Includes concepts, methods, and tools used in accounting system for planning, coordinating, and controlling business activities. Prerequisite: 341, Computer Science 212.

477-3 Current Developments in Accounting Theory. Critical analysis of current developments in accounting theory, especially as reflected in the publications of major accounting associations. Prerequisite: 322.

486-3 Auditing. Standards, objectives, and procedures involved in examining and reporting on financial statements of business organizations. Prerequisite: 322, 341, 365.

495-3 Internship. Supervised work experience in professional accounting. Not for graduate credit. Prerequisite: outstanding record in accounting and recommendation of the departmental committee on internship. Mandatory Pass/Fail.

Administration of Justice (Major, Courses)

The Bachelor of Science degree with a major in administration of justice meets the career objectives of students interested in law enforcement, courts, corrections, juvenile services, and other roles in social and criminal justice. Within a broad framework of the social and behavioral sciences, and interdisciplinary approach is stressed. A philosophy of service and involvement in the real problems of policy makers, administrators, and practitioners is emphasized. An internship placement rounds out the student's program.

Bachelor of Science Degree, College of Human Resources

General Studies Requirements	45
Requirements for Major in Administration of Justice	36
Core: Administration of Justice 200, 201	6
Course work in the following areas:	
Introductory Research	3
Law	3
Management	3
Behavioral and Social Sciences	9
Field Practice	3
Guided electives	9
With an adviser, the students selects from an approved list of courses in administrative sciences, anthropology, Black American studies, community development, history, philosophy, political science, psychology, rehabilitation, social welfare, and sociology.	
Minor	18
Electives	21
Total	120

Minor

A minor in administration of justice consists of 200 and 201 plus any combination of administration of justice courses to reach a total of 18 semester hours.

Courses

- 200-3 Introduction to Criminal Behavior.** Multidisciplinary study of the etiology and patterning of offender behavior.
- 201-3 Introduction to Criminal Justice System.** Survey of the agencies and processes

involved in the administration of criminal justice: The history of English law; the criminal justice process and system, including underlying ideologies, procedures, fundamental legal concepts, and the roles and functions of police, courts, and correctional services.

300-3 Assessment of Offenders. Introduction to the procedures and issues of identifying and evaluating individual differences in offenders and among classes of offenders; analysis of typical diagnostic methods. Prerequisite: 200 and 201 or consent of instructor.

301-3 Human Relations in Criminal Justice. Delineation of major interactive patterns among staff members, between staff and clients, and among clients of probation and parole agencies and correctional agencies; introduction to problems of communication, bureaucracy, and leadership. Prerequisite: 200 and 201 or consent of instructor.

303-3 Behavioral Aspects of Investigation. Principles of behavioral science are applied to the recurrent patterns of criminal investigation as a social and fact-finding process; survey of criminalistics. Prerequisite: 200 and 201 or consent of instructor.

304-3 Law Violation, Law Enforcement, and the Community. Examination of behavioral and social control within the local community; problems raised by social change, assessment of particular issues: traffic control, civil disturbances, vice control, and crime prevention. Prerequisite: 200 and 201 or consent of instructor.

305-3 Criminal Law — Introduction to Procedural Aspects and Police Powers. An introduction to the procedural aspects of criminal law as pertaining to police powers in connection with the laws of arrest, search and seizure, the exclusionary rule, civil liberties, eavesdropping, confessions, and related decision-making factors. Prerequisite: 200 and 201 or consent of instructor.

316-3 Introduction to Criminal Justice Research. A basic introduction to the scientific perspective, relationship of research and theory, research design, data collection, data analysis, reporting of research and program evaluation. Emphasis on problems peculiar to criminological research. Individual research projects. Prerequisite: 200 and 201 or consent of instructor.

344-2 Drug Use. Types of drugs, drug impact on the American culture, legal and illegal uses of drugs, offenses related to drug use, reaction of the criminal justice system to drugs and drug users, and the treatment and prevention programs coping with drug use. Prerequisite: 200 and 201 or consent of instructor.

348-3 Treatment Modalities. Various treatment methods used throughout the criminal justice system. Explanation and evaluation of various treatment techniques; e.g., behavior modification, transactional analysis and other individual and group therapies. Prerequisite: 200 and 201 or consent of instructor.

390-1 to 4 Readings in the Administration of Justice. In-depth, introductory and advanced readings in areas not covered in other Administration of Justice courses. The student must submit a statement describing his topic and relevant reading materials to the faculty member sponsoring the student's readings. Prerequisite: 200 and 201 and consent of faculty sponsor.

395-3 to 15 Supervised Field Experiences in the Administration of Justice. Familiarization and direct experience in applied settings. Under supervision of faculty and adjunct staff, the student assumes a student-participant role in the criminal justice agency. Student must submit internship application during the first thirty days of the preceding spring or fall semester. Prerequisite: 200, 201, 12 hours of Administration of Justice courses and consent of department. Mandatory Pass/Fail.

399-3 Senior Seminar. An evaluation of agency policy and practices observed during the student's field experiences, and synthesis with classroom experiences. Emphasis will also be given to planning a professional career. Prerequisite: 395.

406-3 Legal Aspects in the Administration of Justice. Substantive jurisprudence in the criminal law, including historical and analytical; substantive law relating to police, courts, and corrections including factors affecting decision making. Prerequisite: 305, or graduate status, or consent of instructor.

415-3 Prevention of Crime and Delinquency. Multidisciplinary analysis of the functions, goals, and effectiveness of measures to forestall delinquency and crime. Etiology of delinquent behaviors as related to community institutions such as police, courts, corrections, mental health clinics, schools, churches, and citizen groups. Prerequisite: 200 and 201 or consent of instructor.

416-3 Methods of Criminal Justice Research. The principles of scientific inquiry as applied to the study of the criminal justice system. Overview and examples of project design, evaluative research, methodology and statistical techniques appropriate to criminal justice research. Strongly recommended for students who plan to conduct empirical research in fulfillment of master's thesis requirement. Prerequisite: 200 and 201 or consent of instructor.

417-3 Research Practicum in the Administration of Justice. Application of the principles set forth in 416. Experience in the various phases of an actual research project, including project design, data collection and analysis, and effective communication of results via written reports. Prerequisite: 200 and 201 and 416 or consent of instructor.

- 471-3 Principles of Management in the Administration of Justice.** Basic principles and techniques of management in law enforcement, correctional, and other criminal justice agencies. Prerequisite: 200 and 201 or consent of instructor.
- 472-3 The American Correctional System.** (Same as Sociology 472.) A survey of the correctional field, covering probation, institutional treatment, and parole. Historical development, organizational structure, program content, and current problems. Prerequisite: 200 and 201 or consent of instructor.
- 473-4 Juvenile Delinquency.** (See Sociology 473.) Prerequisite: 200 and 201 or consent of instructor.
- 485-3 Corrections and the Community.** Traditional correctional functions are redefined to emphasize development of resources of community at large, diversion of convicted offenders from institutions, and direct involvement of correctional programs in community affairs. Prerequisite: 200 and 201 or consent of instructor.
- 490-1 to 3 Independent Study in the Administration of Justice.** Supervised readings or independent investigative projects in the various aspects of crime control, treatment of offenders; and management of programs of law enforcement, courts, and correctional agencies. May be repeated up to a maximum of three credit hours. Prerequisite: 200 and 201 or consent of instructor.
- 492-2 to 6 (2 to 3 per semester) Contemporary Issues in Administration of Justice.** A forum for focusing on special interest topics depending on the availability of staff, visiting professors, and other selected instructional resources to cover a contemporary issue of concern to students and the faculty. May re-enroll for a maximum of six credits. Prerequisite: 200 and 201 or consent of instructor.
- 500-3 History and Philosophy of Criminal Justice System.**
- 504-3 Criminological Theory.**
- 562-3 Fundamental Legal Systems in Criminal Justice.**
- 571-3 Correctional Systems in Criminal Justice.**
- 572-4 Seminar in Criminology.**
- 578-1 to 4 Seminar in Correctional Rehabilitation Counseling.**
- 580-3 Planning for Change in the Administration of Justice.**
- 582-3 Criminal Law and the Correctional Process.**
- 584-3 Seminar in Criminological Program Management.**
- 587-3 Seminar in Law Enforcement.**
- 590-1 to 3 Supervised Readings in Selected Subjects.**
- 592-3 Advanced Seminar in Administration of Justice.**
- 595A-3 or 6 Supervised Field Work (Internship).**
- 595B-3 or 6 Supervised Field Work (Internship).**
- 599-3 to 6 Thesis.**

Administrative Sciences (Department, Major, Courses)

The Department of Administrative Sciences is concerned with decision making in the allocation of resources toward the achievement of an organization's objectives. The setting of the organization may be government, business, health, or education, but of greater concern is the administrative process itself regardless of where it takes place.

Students are provided with a curriculum drawing on a variety of disciplines each of which contributes certain conceptual tools and techniques useful in improving the decision making performance of the administrator. Beyond the fundamental departmental requirements and those of the College of Business and Administration, a choice of four specialty programs is available.

Management Systems. The identification of the organization's information requirements is stressed for the purpose of devising a system to efficiently gather and supply the proper data to the decision maker. This process relies heavily on computer technology but should be clearly distinguished from data processing where the focus is on codifying and manipulating data. Graduates of the program are able to find careers as systems analysts and in other staff functions in large organizations who rely on the flow of current information for effective decision making.

Organizational Behavior. People working together toward the achievement of a common objective is the focal point of this program. Understanding the factors that influence individual behavior and the behavior of groups, particularly in a work environment, is critical to the success of any manager. Students select from courses in psychology and sociology as part of this specialty sequence.

Personnel Management. Administrators make decisions about allocating two kinds of resources—physical and human. The process of securing, motivating and rewarding human resources in sufficient quantity and quality to meet an organization’s objectives is emphasized in this specialty.

Production-Operations Management. Processes of symbolic and mathematical analysis are learned in the development of complex administrative planning and control systems in the direction and evaluation of an organization’s activities. Students with a strong background and interest in mathematics find this program to be challenging and rewarding in preparation for a variety of careers in operations analysis and research.

Bachelor of Science Degree, College of Business and Administration

General Studies Requirements 45-46
Professional Business Core (see page 61) 47-48
Requirements for Major in Administrative Sciences 18-25
 Administrative Sciences 341, 345, 361, 385 12

Specialization (Choose one) 6-13

Management Systems
 Administrative Sciences 456, 457 6
 Choose two from the following: Administrative Sciences 352, 431, 453, 483, 485, 489, Accounting 301, 321, 322, 341, 405, 442, 475, Finance 421, 422, 475, Economics 330, 340, 431, 467, Marketing 439, 452, 495, Computer Science 312 6-(6)¹

Organizational Behavior
 Administrative Sciences 431, and 456 or 474 6
 Choose two from the following: Administrative Sciences 489, Accounting 301, 341, 405, Finance 271, 421, 480, Economics 310, 333, 436, 481, Marketing 439, 452, Psychology 307, 461, Sociology 332, Speech Communication 362 6-7-(6)¹

Personnel Management
 Administrative Sciences 485 and Finance 476 or Economics 436 6-(6)¹
 Choose two from the following: Administrative Sciences 431, 489, Speech Communication 362, Psychology 307, 461, Sociology 332 6-7-(6)¹

Production-Operations Management
 Administrative Sciences 352, 453, 483 9
 Choose one from the following: Administrative Sciences 457, 489, Accounting 341 3-(3)¹

Electives	1-10
Total	120

¹Hours shown in parentheses are already included in total of hours shown for professional business core.

Courses

170-3 Introduction to Business Administration. Survey of business. General knowledge of the modern business world, the composition and functions of the business organization, as well as business as a social institution. Open only to freshmen and sophomores. Does not satisfy a College of Business and Administration requirement. Elective Pass/Fail.

208-4 Interpretation of Business Data. Uses of business data in policy formulation are discussed. Emphasis is placed on the conversion of raw information into statistics which are useful to the decision maker. Problems stress solution to questions typically raised in businesses. Prerequisite: Mathematics 116 or 139 or equivalent. Elective Pass/Fail.

300-3 Internship in Administrative Sciences. Supervised work experience that relates to the student's academic program and career objectives. Not repeatable for credit. Prerequisite: junior standing and consent of department. Mandatory Pass/Fail.

301-3 Management and Supervision. Functions of management and the requisites for effective supervision are emphasized by way of application to practical situations. For non-business majors who expect to assume supervisory responsibility where successful allocation and evaluation of human resources is necessary. Not open to students enrolled in the College of Business and Administration. Credit not available for both 301 and 304. Prerequisite: GSB 202, junior standing or consent of department. Elective Pass/Fail.

302-3 Administrative Communications. Creating and managing interpersonal administrative communications including the analysis, planning, and practice of composing different types of internal and external communications in various administrative and business contexts.

304-3 Organization Administration. Basic concepts of the administrative process are considered with emphasis on executive action to develop policy, direction, and control based on traditional and behavioral science approaches to decision making. Prerequisite: GSB 202 or equivalent and junior standing or consent of department. Elective Pass/Fail.

318-3 Production-Operations Management. An introduction to the design, operation, and control of systems or processes by which materials, labor, and capital are combined in an organized way with the objective of producing goods or services. Topical coverage includes the systems concept, planning, forecasting, job design, location, layout, logistics, scheduling, and production, inventory, quality, labor, and cost control. Prerequisite: 208, Mathematics 117 or 140, Computer Science 212 or Electronic Data Processing 217 or equivalent, junior standing or consent of department. Elective Pass/Fail.

341-3 Organizational Behavior I. The study of human problems in administration including the analyses of individual, group, and inter-group relations under a broad range of organizational settings. Theory and case analyses. Prerequisite: 208, and 304 and junior standing or consent of department. Elective Pass/Fail.

345-3 Introduction to Management Systems. Integrates topics of management and organization, information, computers, and the systems approach. Emphasizes planning, design, and implementation of information systems to aid management decision making. Application of computer techniques to develop, manipulate, and analyze system models. Prerequisite: 318, Computer Science 212 or Electronic Data Processing 217 or equivalent, and junior standing or consent of department. Elective Pass/Fail.

350-3 Managing the Small Business. Identification of small business, its importance and relationship to the United States economy and the opportunities and requirements unique to operation and management. Personal characteristics, interpersonal relationships, organizational systems, and decision-making processes are examined for their contribution to the success or failure of the firm. Prerequisite: 304 or consent of department. Elective Pass/Fail.

352-3 Introduction to Management Science. Basic concepts and methods of management science with analysis on problem formulation and solution. Topics include decision theory, classical optimization techniques, and simulation. Prerequisite: 208, Mathematics 117 or 140 or equivalent, and Computer Science 212 or equivalent, junior standing or consent of department.

361-3 Research Methods in Administration. Design of research to assist managerial decision making. Concepts, tools, sources, and methods of research. Planning, collecting, organizing, evaluating, and presenting research data. Prerequisite: 304, 208, GSD 101 and junior standing or consent of department. Elective Pass/Fail.

385-3 Personnel Management. An introduction to the development, application, and evaluation of policies, procedures, and programs for the recruitment, selection, development, and utilization of human resources in an organization. Prerequisite: 304 or equivalent, introductory statistics, and junior standing or consent of department. Elective Pass/Fail.

402-1 Strategies for Seeking Employment. The job placement process and the work environment from the viewpoint of the applicant. Emphasis on career planning, manpower analysis, placement and interviewing techniques with a stress on the transition from the academic community to the business and professional environment. Not offered for graduate credit. Prerequisite: senior standing or consent of department. Mandatory Pass/Fail.

431-3 Organizational Behavior II. The study of modern theories of complex organizations. Particular emphasis is placed on open-systems perspectives of administrative theory and the adaption of the organization to a changing environment. Prerequisite: 341 and junior standing or consent of department. Elective Pass/Fail.

452-3 Management Science I. An introduction to mathematical model building in business and solution techniques commonly used to solve such models. Topical coverage includes introduction to models and decision theory, classical constrained optimization, linear programming and some extensions, inventory, maintenance, and replacement models. Prerequisite: 208, Mathematics 117 or 140 or equivalent, junior standing or consent of department.

453-3 Management Science II. A continuation of 452. Mathematical model building in business and solution techniques commonly used to solve such models. Topical coverage is primarily probabilistic models with an emphasis on inventories, queues, simulation, and decision theory. Prerequisite: 452, junior standing or consent of department.

456-3 Management Systems Applications. Investigation of selected systems and computer based methods for aiding management decision-making. Topics include systems analysis applications, simulation, and decision models. Prerequisite: 345, 352 or 452 and junior standing or consent of department. Elective Pass/Fail.

457-3 Advanced Management Systems. Survey of systems theory and models related to management and administration of a variety of organizations. Topics include systems analysis, diagnosis, and synthesis; hierarchies; information and control; and general systems theory. Prerequisite: 345, 352 or 452, 341, junior standing or consent of department. Elective Pass/Fail.

474-3 Management Responsibility in Society. Analysis of the cultural, social, political, economic, and immediate environment of the organization. Particular emphasis is given to the manner in which the manager adapts to and is influenced by his environment and its conflicting demands. Prerequisite: senior standing or consent of department. Elective Pass/Fail.

479-3 Problems in Business and Economics. (Same as Economics 479.) Application of economic theory and tools of analysis to practical business problems. Cost and demand functions, and forecasting and analyzed from a policy standpoint. Prerequisite: 208 or Economics 308, Economics 215, Marketing 304, and junior standing or consent of department. Elective Pass/Fail.

481-3 Administrative Policy. Development of organizational strategies and policies within environmental and resource limitations. Emphasis upon the application and integration of basic principles from all areas of business by case problem analysis, simulation exercises, and group participation. Not for graduate credit. Prerequisite: senior standing, 304, 318, Finance 320, Marketing 304, or equivalent. Elective Pass/Fail.

483-3 Advanced Production-Operations Management. Internal problems of managerial control of production including recent developments in theory and techniques; case material will be utilized for the development of analytical ability. Cost of field trips (\$5) must be incurred by the student. Prerequisite: 318, 352 or 452, junior standing or consent of department. Elective Pass/Fail.

485-3 Organizational Development. Analysis of problems in personnel management with emphasis on current trends and techniques. Case problems, special reports, and experiential approaches are used as a basis for examining ways of using an organization's human resources to best advantage. Prerequisite: 341, junior standing or consent of department. Elective Pass/Fail.

489-15 (3, 3, 3, 3, 3) Seminar in Administrative Sciences. Investigation of selected special or advanced topics in seminar format. Topics may include, but not limited to: management responsibility in society, wage and salary administration, health services administration, data processing management, current issues in management, etc. (a) Personnel. (b) Organization. (c) Systems. (d) Production. (e) Management science. May be taken singly. Prerequisite: consent of department chairman and instructor. Elective Pass/Fail.

491-1 to 6 Special Topics in Administration. Utilizes special faculty resources to enable individually, the exploration of an advanced area of study through research by means of data analysis and/or literature search. Prerequisite: consent of department chairman and instructor.

Aerospace Studies (Department, Courses)

Aerospace Studies is a voluntary course sequence leading to a commission as an officer in the United States Air Force. When commissioned, all officers must have at least a baccalaureate degree; hence completion of the program is contingent upon maintaining satisfactory progress toward graduation. Enrollment in the first two years (general military course) is unrestricted and no military obligation is incurred. Special students who do not intend to obtain a commission are welcome.

Acceptance into the last two years (professional officer course—300 level) is competitive and requires qualification on the Air Force Officer Qualifying Test and a physical examination. For some officer candidates, the field of concentration must be related to an officer career specialty in the air force. Students in the professional officer course do incur a military obligation. They are paid a monthly tax-free subsistence allowance. Graduate students who have two years remaining at the University, not counting summers, are eligible.

Qualified students may enter directly at the 300 level without completing the general military course by attending a six-week field training course during the summer prior to entrance. Four year students attend a four-week field training course. Field training is conducted at air force bases and students are paid while attending.

Courses

100-0 (0, 0) Leadership Laboratory I. (a) Supervised laboratory taken concurrently with 101, (b) Taken with 102. Student develops leadership potential by participating in practical leadership situations. Emphasis is on the role of customs and courtesies in working with other people in a large organization. Required of regular students.

101-1 United States Air Force. Evolution of modern aerospace power and concepts on which it was developed. Introduction to aerospace support forces. Includes airlift, research and development, logistics, and education and training.

102-1 Aerospace Offensive and Defensive Forces. Introduction to U.S. general purpose and strategic offense forces, and the constraints involved in the use of modern weapons. Introduction to concepts, organization, equipment, and procedures involved in strategic defense of the United States.

200-0 (0, 0) Leadership Laboratory II. (a) Concurrent with 201, (b) Concurrent with 202. Student continues to develop his leadership potential by leading small group activities. Prerequisite: 100.

201-1 The Development of Air Power I. History of manned flight from pre-aircraft to end of World War II. Develops the themes of doctrine, technology and evolution of aircraft, and U.S. Air Force.

202-1 The Development of Air Power II. History of United States Air Force from separate military department status into early 1970's. Highlights the versatility of air power and the changing role of machines, men, and tactics in air warfare.

258-4 GMC Equivalency. Work experience credit for 101, 102, 201, and 202. This credit will be evaluated by the head of the Aerospace Studies Department. Prerequisite: satisfactory completion of the academic phase of the six-week field training course for AFROTC two-year applicants.

300-0 (0, 0) Leadership Laboratory III. (a) Concurrent with 303, (b) Concurrent with 304. Student continues to develop leadership potential by assuming command and staff responsibility. Prerequisite: completion of 200 or GMC equivalency.

305-3 Management and Leadership I. Student relates current management and leadership theory to problems faced by middle managers in a large bureaucracy, the United States Air Force. Examines individual motivation, organization dynamics, performance appraisal, and decision making. Practices writing and speaking styles appropriate to a large organization. Prerequisite: satisfactory completion of the GMC, six weeks field training, or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail.

306-3 Management and Leadership II. Continuation of 305. Students examine traditional and modern theories of leadership to define their own roles as leaders. Study military

law and the law of armed conflict as they apply to the junior officer. Examine value conflict and conflict resolution for the middle manager. Prerequisite: 305 or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail.

340-0 (0, 0) Leadership Laboratory IV. (a) Concurrent with 351, (b) Concurrent with 352. Students are responsible for developing and implementing the goals and objectives of leadership laboratory. Includes a study of the facilities, service and benefits available to junior officers to insure an orderly transition to military life.

355-3 Formulation of Defense Policy. Student explores the dynamics of formulating and implementing American defense policy. Examines international political trends, fundamental causes of inter-state conflict, and domestic and international constraints which restrict the options available to American defense policy makers. Prerequisite: 306 or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail.

356-3 Civil-Military Relations. Student analyzes crucial questions about the role and functions of the military officer. Examines contemporary issues including social values and attitudes toward the military. Prerequisite: 355 or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail.

African Studies (Minor)

African area studies is available through an interdisciplinary minor, involving courses in anthropology, Black American studies, geography, history, linguistics, political science, and religious studies. Each of these departments has one or more faculty who specialize in Africa and who are interested in assisting students wanting to study about Africa. The requirements for the African studies minor are listed below.

Minor

The African studies minor consists of 15 hours with 9 hours in required core courses and 6 hours of electives.

Required Core Courses: 9 hours selected from Anthropology 310G, Black American Studies 225, 314a,b, History 387a,b, Political Science 465.

Electives: 6 hours selected from any courses not used as part of the core or Anthropology 420-3 (only when an African language is studied), Geography 365, Linguistics 450-3 (only when African languages are studied), Religious Studies 333, or 2-3 hours of reading courses on Africa sponsored by any of the departments listed above or below.

Suggested related courses which do not count toward the minor are: Agricultural Industries 442, 443, Anthropology 310H, 315, 405, 410H, Black American Studies 311a,b, Economics 322, History 362a, b, or Political Science 352.

Agricultural Education (Major)

In this program a student will receive the technical and professional training needed to teach applied biological and agricultural occupations in secondary schools, serve in extension, or be employed in industry. A student majoring in agricultural education may specialize in one of the following areas: agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture, agricultural resources, forestry, and other areas of agriculture in specially designed curricula.

Bachelor of Science Degree, College of Education or School of Agriculture

AGRICULTURAL EDUCATION MAJOR—SECONDARY TEACHING CERTIFICATE	
<i>General Studies Requirements</i>	46-47
GSA 106, 115	6

GSB 212 or 300, and 202	6-7
GSD 101, 107, 118, 153	12
GSE 201 and two hours of physical education activity courses	4
<i>Requirements for Major in Agricultural Education</i>	40
Agricultural Industries (agricultural economics)	3
Agricultural Industries (agricultural mechanization)	4
Agricultural Industries 311 and one of the following: Agricultural Industries 411, 414, Vocational Education Studies 360, 364	6
Animal Industries	3
Plant and Soil Science	3
Specialty in Agriculture and agriculture electives	21
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	9-10
<i>Total</i>	120

Agricultural Industries (Department, Major, Courses)

Work is offered in agricultural industries in two major specializations, (a) agricultural economics and (b) agricultural mechanization. In agricultural economics, there are two options: 40 hours in agriculture and 32 hours in agriculture. The 40-hour option provides a broad training in agriculture. The 32-hour option provides additional work in economics or business.

In agricultural economics, courses are offered in the following fields: farm management, agri-business, management, agricultural credit, agricultural prices, agricultural marketing, cooperatives, and agricultural policy.

In agricultural mechanization, courses are offered in six areas: basic construction processes, agricultural power and machinery, agricultural electrification, agricultural structures, soil and water conservation, and agricultural materials handling and processing.

For a number of courses taught in the department, there will be an additional charge for field trips, laboratory manuals, or supplies.

Bachelor of Science Degree, School of Agriculture

AGRICULTURAL INDUSTRIES MAJOR—AGRICULTURAL ECONOMICS SPECIALIZATION

	<i>Options</i>	
	40 Hours	32 Hours
<i>General Studies Requirements</i>	46	46
GSA 106 and 115 or equivalent	6	6
GSD 101, 107 ¹ , 118, 153	12	12
<i>Requirements for Major in Agricultural Industries</i> ..	54	54
Agriculture Requirements	(40)	(32)
Agricultural Industries 204	3 ²	3 ²
Agricultural Industries 350 or 360, 351, 362, 450 or 461	12	12
Other Agricultural Industries	8	8
Animal Industries	3	3
Plant and Soil Science	3	3
Electives in Agriculture	11	3
Business and Economics Requirements	(14)	(22)
Economics 214, 215	6	6
Accounting and Quantitative Methods	8 ³	8 ³
Other business and economic courses	0	8

<i>Electives</i>	20	20
<i>Total</i>	120	120

¹Mathematics 110a, b or Mathematics 111 or highly recommended.

²Agricultural Industries 204 substitutes for GSB 211.

³Courses in accounting, computer science, and statistics or equivalent, in two fields.

AGRICULTURAL INDUSTRIES MAJOR—AGRICULTURAL MECHANIZATION SPECIALIZATION

<i>General Studies Requirements</i>	46-47
GSA 115, 106 or School of Technical Careers 107-4, or equivalent	9-10
GSD 101, 118, 107 or trigonometry, 153	12
<i>Requirements for Major in Agricultural Industries</i>	52
Agricultural Industries 373, 376, 377, 378, 379, 472, 473, 474, 475, Plant and Soil Science 346, plus three additional elective hours in agricultural industries	28
Animal Industries	3
Plant and Soil Science or Forestry	6
Agricultural electives	15
<i>Electives</i>	21-22
<i>Total</i>	120

Minor

A minor in agricultural industries is offered. A total of 16 hours within the department is required. A counselor within the department must be consulted before selecting this field as a minor.

Courses

204-3 Introduction to Agricultural Economics. Agriculture in local and national economy; distribution; size and organization of the farm business units; policies affecting agriculture. Elective Pass/Fail.

257-1 to 10 Work Experience. Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of chairman. Mandatory Pass/Fail.

258-1 to 30 Past Work Experience. Credit for career related employment based on the evaluation of the documentation of this experience by the Department of Agricultural Industries. No grade for past work experience. Prerequisite: consent of chairman.

302-2 Country Living Management and Information. Managing a small acreage as an avocation. Types of decision problems and sources of information.

311-3 Agricultural Education Programs. Nature and scope of the different programs involved in teaching agricultural occupations and methods of developing them.

340-3 Economic Analysis of Food and Rural Development Policies. An economic analysis of the structure, problems, and alternative public policies of the food production industry. The dimensions and causes of rural poverty and alternatives for rural development. Prerequisite: 204 or consent of instructor. Elective Pass/Fail.

350-3 Farm Management. Efficient organization and management of a farming operation. Emphasis on crop and livestock selection, management of farm resources, farm budgets and records analysis, and farm leases. Student will incur field trip expenses not to exceed \$5.00. Prerequisite: 204 or one course in economics. Elective Pass/Fail.

351-3 Financial Management in Agriculture. Analysis of the capital structure of agriculture and sources of capital. Credit analysis of agribusiness firms using financial statements, firm growth, capital budgeting, and tax considerations. Prerequisite: 204 or equivalent. Elective Pass/Fail.

359-1 to 6 Intern Program. Supervised work experience program in either an agricultural agency of the government or agri-business. Prerequisite: junior standing or consent of instructor. Mandatory Pass/Fail.

360-3 Cooperatives and Agri-Business Management. Problems and practices in agri-business operations including forms of organization, alternative organization and structure

impacts on decision making, tools of decision making, financial analysis and methods of improving the effectiveness of the marketing system. Prerequisite: 204 or equivalent. Elective Pass/Fail.

361-2 Distribution in Agri-Business. The nature of agri-business distribution, opportunities to improve the effectiveness of the distribution system through an understanding of the function involved. Prerequisite: 204 or equivalent. Elective Pass/Fail.

362-3 Marketing and Pricing Agricultural Products. Institutional arrangements in marketing agricultural products. Market structure, marketing costs, and alternative methods of pricing agricultural products are also examined. Prerequisite: 204 or equivalent. Elective Pass/Fail.

371-2 Skills in Home Maintenance and Repair. Common home related maintenance and repair activities. Units include safety and developing the home shop; construction skills related to masonry, concrete, plumbing and painting; basic electricity and practical home wiring; and lawn, garden and recreational equipment maintenance and operation.

373-3 Agricultural Production Machinery. Selection, application, operation, maintenance, adjustments, calibration, and repair of agricultural production machinery.

376-2 Applied Graphics. Fundamentals of interpreting graphic illustrations, sketching, drawing and lettering in agriculture, forestry, and landscape design.

377-2 Surveying and Planning. Surveying, mapping, land measurement, contouring, planning waterways and terraces and other water control structures used in the development and conservation of forests and agricultural land.

378-3 Construction Processes in Agriculture. Principles of shop organization; tool and equipment utilization and application; safety as related to woodworking; concrete construction; welding and metal fabrication; and plumbing.

379-3 Basic Mechanical Processes in Agriculture. Tool usage, instrumentation and principles in electricity, soil and water, and small engines.

381-1 to 4 (1, 1, 1, 1) Agricultural Seminar. Discussion of special topics and/or problems in the fields of agricultural industries. Prerequisite: junior standing and consent of department.

388-1 to 16 (1 to 8 per semester) International Studies. Course work undertaken as part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: major department or program approval.

390-1 to 4 Special Studies in Agricultural Industries. Assignments involving research and individual problems. Field trips. Prerequisite: consent of chairman. Elective Pass/Fail.

391-1 to 4 Honors in Agricultural Industries. Completion of honors paper or comparable project under the supervision of one or more faculty members. Subject matter depends upon the needs and interests of the student. Prerequisite: junior, GPA 3.0 with 3.25 in major; approval of staff member, department chairman. Elective Pass/Fail.

401-3 Agricultural Law. Relations of common-law principles and statutory law to land tenure, farm tenancy, farm labor, farm management, taxation, and other problems involving agriculture. Prerequisite: junior standing or consent of instructor. Elective Pass/Fail.

402-1 to 18 (1 to 6 per topic) Problems in Agricultural Industries. (a) Agriculture Economics. (b) Agriculture Education. (c) Agriculture Mechanization. Designed to improve the techniques of agriculture industries workers through discussion, assignment, and special workshops on problems related to their field. Emphasis will be placed on new innovative and currently developed techniques for the field. A limit of six hours will be counted toward graduation in a master's degree program. Prerequisite: consent of chairman.

411-3 Program Development in Agricultural Extension. Principles and procedures in developing extension programs with emphasis on program determination and methods. Prerequisite: junior standing.

412-2 Principles of Agriculture Mechanization. Theory and use of educational materials and devices adaptable to the needs and interests of educators involved in agricultural mechanization laboratories.

414-3 Adult Education Procedures, Methods, and Techniques. Determining adult education needs and interests of the community. Securing and organizing the information needed for adult education programs and planning teaching activities.

415-3 Beginning Teacher Seminar. The application, in the professional field setting of principles and philosophies of the education system. Includes application of principles of curricula construction, programming student and community needs. Prerequisite: consent of instructor.

440-3 Land Resource Economics. (Same as Economics 471.) The use of land as an economic variable in production of goods and services; land markets; group versus individual conflicts; and land utilization as related to institutional arrangements. Prerequisite: 204, GSB 211 or consent of instructor. Elective Pass/Fail.

442-2 Agricultural Development in Emerging Countries. Principles and practices in improving agriculture in areas with limited capital and low levels of technology. Prerequisite: 204 or GSB 211. Elective Pass/Fail.

443-2 Marketing Practices and Problems in Developing Countries. Types of markets,

assembly of products, storage, transportation, quality determination, and pricing practices which are peculiar to the developing countries. Market organization and practices for the major export products and the principal domestic foods and fibers in such countries. Methods of progressively improving such markets. Prerequisite: 204 or equivalent. Elective Pass/Fail.

450-3 Advanced Farm Management. The role of the farm manager in credit institutions, professional farm management service, and the self-employed farmer will be emphasized. The concepts of farm marketing, farm finance and decision making as integrated in the management process will be central. Field trips not to exceed \$25. Prerequisite: 350 or equivalent. Elective Pass/Fail.

451-2 Farm Real Estate Appraisal. Principles and practices of farm real estate appraisal. Application of capitalization, market, and cost approaches for estimating market value. Understanding of special valuation methods used for buildings, insurance, assessments, loans, and condemnation. Field trips not to exceed \$10. Prerequisite: 350 or consent of instructor. Elective Pass/Fail.

453-3 Advanced Farm Planning Techniques. Application of linear programming to farm planning including enterprise selection, resource allocation, and least cost ration formulation. Farm decision making under uncertainty and analysis of farm expansion alternatives. Prerequisite: 350 or consent of instructor. Elective Pass/Fail.

460-3 Agricultural Prices. Measurement and interpretation of factors affecting agricultural prices. Construction of index numbers, trend analysis, seasonal and cyclical price movements and the measurement of relationships between price and other variables. Prerequisite: 362 or equivalent.

461-3 Agriculture Business Management. Function of top management in agribusiness, such as: determining objectives, developing sound and consistent policies for achieving objectives; organizing the administrative personnel to carry out the plans; guiding and maintaining the administrative organization. Prerequisite: 360.

462A-1 Agricultural Marketing Problems and Practices—Livestock. Problems and their solutions in marketing livestock. Prerequisite: 362. Elective Pass/Fail.

462B-1 Agricultural Marketing Problems and Practices—Field Crops. Problems and their solutions in marketing field crops. Prerequisite: 362. Elective Pass/Fail.

462C-1 Agricultural Marketing Problems and Practices—Dairy and Poultry. Problems and their solutions in marketing dairy and poultry products. Prerequisite: 362. Elective Pass/Fail.

462D-1 Agricultural Marketing Problems and Practices—Horticultural Crops. Problems and their solutions in marketing horticultural crops. Field trips cost \$5.00. Prerequisite: 362. Elective Pass/Fail.

463-2 Commodity Futures Market. The mechanics of futures market trading, commodity charting, technical and fundamental trading approaches, hedging, and risks in commodity speculation will be emphasized. The history, development, and importance of the commodity future market will be reviewed and the role of participants and supporting institutions will be presented. Prerequisite: junior or senior standing. Elective Pass/Fail.

472-3 Agricultural Tractors and Engines. The principles of operation, selection, mechanics, maintenance, tune-up, and testing of multi-cylinder farm type internal combustion engines. Prerequisite: 379 or equivalent, or concurrent enrollment or consent of instructor.

473-2 Advanced Agricultural Electricity. Application of electricity to agricultural problems. An emphasis on principles of electrical distribution on the farm and the agribusiness operation. Planning the efficient usage of electrical machinery and a study of components parts to increase productivity and save labor. Prerequisite: 379 or equivalent.

474-2 Advanced Agricultural Structures. A discussion and study of design characteristics applicable to farm structures. Consideration of economics, costs, environment, arrangements, materials and type of structures. Plans and drawing of farmstead layout, service buildings, and rural residential buildings made. Prerequisite: 378 or equivalent.

475-3 Agricultural Materials Handling, Processing, and Storage. Arrangement of systems for animal waste disposal, feed handling and processing, and storage of agricultural products. Prerequisite: 378 or 379 or 473 or 474.

500-4 (2, 2) Agricultural Industries Research Methodology.

551-3 Resource Allocation in the Agri-Business Firm.

552-3 Problems and Policies of the Agricultural Sector.

571-3 Current Problems and Research in Agricultural Power and Machinery.

581-1 to 12 (1 to 4 per topic). Seminar.

588-1 to 8 International Graduate Studies.

590-1 to 4 Readings.

593-1 to 4 Individual Research.

595-1 to 4 Agricultural Occupation Internship.

599-1 to 6 Thesis.

Agriculture (Courses)

Courses

259-2 to 40 Technology in Agriculture. For credit earned in technical or occupational proficiency above the high school level (by departmental evaluation).

333-2 Agriculture and Forestry Environmental Problems. An overview course directed at the environmental problems of food, fiber and forest products, production and processing and their potential solutions. A team taught course within the School of Agriculture.

388-1 to 16 (1 to 8 per semester) International Studies in Agriculture. Course work undertaken as a part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: School of Agriculture or department within the school approval.

401-3 Fundamentals of Environmental Education. (Same as Forestry 401 and Recreation 401.) A survey course designed to help education majors develop an understanding of environmental problems and an awareness of how these types of problems can be handled both inside and outside the classroom. Prerequisite: ten hours of biological science, or ten hours of recreation and/or education, or consent of instructor.

423-3 Environmental Interpretation. (Same as Forestry 423 and Recreation 423.) Principles and techniques of natural and cultural interpretation. Two hours lecture, three hours laboratory. Approximately \$10 cost for field trips. Prerequisite: ten hours biological science or ten hours of recreation.

Agriculture, General (Major)

General agriculture is an excellent choice of agricultural major for the students who wish a flexible program which permits them ample selection of courses to satisfy their interests and abilities, as well as to attain their educational and professional goals. The minimum requirements give students a broad background in agriculture; the unusual freedom in selecting courses to fulfill these minimum requirements as well as the large number of free electives permit students to individualize their educational experience.

Students gain basic preparation for many of the agricultural careers: general farming, agricultural services, agricultural extension, agricultural communications, agricultural business, agricultural industry, and agricultural production. Two specializations within the general agriculture major, environmental studies and country living, are designed to reflect current emphases and interest in agriculture.

Environmental Studies Specialization. In addition to serving as preparation for entry into the traditional agricultural and agricultural related occupations, students now find that the general agriculture major, with the study of soils, crops, forests, animals and their interrelatedness, is an excellent and practical way to study environmental and ecological problems. Choosing their agriculture and elective courses with this emphasis in mind permits students to specialize in environmental studies within the major, general agriculture. For this specialization, the general agriculture requirements remain the same; however, to fulfill the requirements, students must complete as agriculture or elective courses, thirty hours from among Agriculture 333, 401, 423; Agricultural Industries 440; Animal Industries 455; Forestry 301, 312, 331, 409, 430, 453; Plant and Soil Science 328A, 346, 420, 468; Economics 333; Thermal and Environmental Engineering 314; Political Science 325. Substitute courses may be approved through the office of the dean of the school of Agriculture.

Country Living Specialization. This specialization is available in the general agriculture major. This area of study provides the student with a background to more effectively manage and enjoy an acreage in the country. Suggested courses are Agricultural Industries 302, 371; Animal Industries 121, 201, 319; Forestry 341; Plant and Soil Science 238, 325, 328, 346. The selection of these courses or others in the school of Agriculture should be made by the student jointly with a staff member in the school.

Bachelor of Science Degree, School of Agriculture

<i>General Studies Requirements</i>	47
GSA 106 or chemistry substitute	3
Botany 200 and Zoology 118	7
GSB 211 or Agricultural Industries 204	3
Elective GSB ¹	6
GSC ¹	9
GSD 101, 107, 153	10
Additional GSA, GSB or GSC	3
GSD 117, 118, or 119	2
GSE	4
<i>Requirements for Major in General Agriculture</i>	40
Animal Industries	8
Agricultural Industries	8
Plant and Soil Science	8
Agricultural and Forestry Electives	16
<i>Electives</i>	33
<i>Total</i>	120

¹For environmental studies specialization, GSB 220 and GSB/C 221 are required.

Minor

A minor in general agriculture with either an environmental studies or a country living specialization requires 16 hours in the respective area from the courses listed above for the specialization.

**Allied Health Careers
Specialties (Program, Specialized Major)**

Individualized courses of study leading to specialties in allied health career fields are offered by the School of Technical Careers through programs which combine clinical experience with appropriate courses from throughout the University, from community colleges, and from other educational institutions.

Each student works with an adviser to design a core curriculum and clinical experience in an appropriate clinical setting. The student may study in such fields as medical laboratory technology, radiologic technology, respiratory therapy.

Because programs are individually designed, prospective students must consult with the faculty about course and program requirements. Persons interested in the allied health careers specialties program should contact the chairman of the Division of Allied Health and Public Services

The program is intended to accommodate the non-traditional student. Enrollment is limited by the availability of clinical facilities and supervising faculty; prospective students are urged to begin the admission and advisement process well in advance of the semester in which they wish to begin their studies.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Allied Health Careers Specialties

Allied Health Careers 125	4
School of Technical Careers 102, 103, 115a, 141, 153a, 210a	13
Clinical Phase	48
The clinical phase of the curriculum requires the selection of two allied health career specialty areas for a total of forty-eight semester hours.	
Clinical Laboratory Technique: Allied Health Careers 101, 151, 201	(24)
Clinical Radiology Technique: Allied Health Careers 102, 152, 202	(24)
Clinical Respiratory Therapy Technique: Allied Health Careers 103, 203	(24)

Total 65

Courses

101-1 to 4 Introduction to the Clinical Laboratory Technology. Introduces the student to the field of medical technology and the basic concepts of the clinical laboratory. By utilizing principles from the sciences and applying to a clinical situation, the student will develop skills, safety awareness, and interpersonal relationships. Prerequisite: consent of program adviser.

102-1 to 4 Introduction to the Clinical Radiologic Technology. The student is introduced to the field of radiologic technology, the personnel assigned to that department and the radiology department's interaction with the total hospital operation. The student is taught the methods of utilizing the tools of the sciences in the clinical situation. Prerequisite: consent of program adviser.

103-1 to 12 Clinical Respiratory Therapy. Introduces the student to basic principles and practice of respiratory therapy. Utilizing guided audio visual instruction, applied structured lab and clinical practice, which includes the following: oxygen and related equipment, oxygen delivery modes, humidifiers and nebulizers, intermittent positive pressure breathing, care of the patient on volume ventilation, understanding psychosocial problems of the chronic respiratory patient. Prerequisite: consent of program adviser.

125-1 to 4 Survey of Allied Health Related Sciences. Emphasizes the concept of health and the basic needs of people, both in a state of health and as altered by illness. This includes the principles of the physical, biological and behavioral sciences and the knowledge basic to the proper understanding of various allied health procedures. Prerequisite: consent of the program adviser.

151-1 to 10 Clinical Laboratory Techniques. Specific tasks in the areas of urinalysis, coagulation, hematology, and serology are taught. Emphasis is on the development of background information, clinical knowledge, and clinical skills. Clinical information obtained through the performance of tasks is evaluated and related to its function in the clinical setting. Methods of data gathering and problem solving are developed. Prerequisite: consent of program adviser.

152-1 to 10 Clinical Radiologic Techniques. Basic radiographic anatomy and positioning of the extremities, chest abdomen, techniques and practice in specialized radiographic procedures will be taught. Emphasis is placed on patient handling, radiation safety, dark-room procedures, and application of electrical and radiation physics. Clinical skills, clinical knowledge and clinical information obtained through the performance of tasks are validated and related to their function in the clinical setting. Prerequisite: consent of program adviser.

201-1 to 10 Clinical Laboratory Techniques. Specific tasks in the areas of blood banking, clinical bacteriology, and clinical chemistry are taught. Emphasis is on the development of background information, clinical knowledge, and clinical skills. Clinical information obtained through the performance of tasks is evaluated and related to its function in the clinical setting. Methods for data gathering and problem solving are developed. Prerequisite: consent of program adviser.

202-1 to 10 Clinical Radiologic Techniques. Basic radiographic anatomy and positioning of the upper thorax, spinal column, skull, and facial bones, plus special areas of interest will be taught. Procedures requiring contrast media are covered as they relate to the particu-

lar anatomy being studied. Emphasis is placed on the practical aspects of radiation safety, physics, darkroom chemistry, technique charts, and special radiographic accessories. Clinical skills and information obtained through the performance of tasks are evaluated and related to their function in the clinical setting. Methods of data gathering and problem solving are developed. Prerequisite: consent of program adviser.

203-1 to 12 Clinical Respiratory Therapy. A continuation of materials covered in 103 with more in depth approach in a variety of clinical situations so that students will be able to develop skills needed in utilizing more complex respiratory therapy equipment and clinical judgments. Care of the patient in acute respiratory failure, cardiopulmonary resuscitation, important procedures in asepsis, airway care and suctioning, medications, basic procedures in pulmonary function testing, and postural drainage. Prerequisite: consent of program adviser.

Animal Industries (Department, Major, Courses)

Instruction, research, demonstration, and consultation are provided in dairy, horse, livestock and poultry production, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management.

The student has opportunity to select courses in other areas of agriculture or related fields, such as business, biology, or physical sciences. This selection allows students to include in their studies the agronomic, agricultural economic, and agricultural engineering phases of agriculture or business as related to animal production.

In addition to the production, and the science and pre-veterinary medicine options, the department also offers a two-year and a three-year curriculum in pre-veterinary medicine. These allow qualified students to transfer to accredited colleges of veterinary medicine prior to receiving the Bachelor of Science degree in animal industries.

A major in animal industries may not take a departmental course on an elective Pass/Fail basis if the credits are to be applied toward the required thirty hours in animal industries courses. Majors may take departmental courses beyond the thirty hour requirement on an elective Pass/Fail basis.

There may be extra expenses for field trips, manuals, or supplies in some courses.

Bachelor of Science Degree, School of Agriculture

ANIMAL INDUSTRIES MAJOR—PRODUCTION OPTION

<i>General Studies and Substitutes</i>	49-50
Substitute Chemistry 140a, b or equivalent for GSA 106, 107	8
GSD 153 recommended	3
Substitute Biology 306, 308, 309, Botany 200 or Zoology 118 for GSA 115	3-4
Substitute Physiology 210 for GSA 208, 209	4
<i>Requirements for Major in Animal Industries</i>	42
Animal Industries 121, 122, 211, 215, 310 or 311a, 315, 332, and 381	17-18
Animal Industries electives including a minimum of two 400-level courses	12-13
Agriculture electives excluding Animal Industries	8
Microbiology 301	4
<i>Electives</i>	28-29
<i>Total</i>	120

ANIMAL INDUSTRIES MAJOR—SCIENCE AND PRE-VETERINARY OPTION

<i>General Studies and Substitutes</i>	63
Substitute Chemistry 222a,b or equivalent for GSA 106, 107	8

Substitute Physics 203a,b and 253a,b or 204a,b and 254a,b for GSA 101	8
Substitute Mathematics 110a,b for GSD 107	5
Biology	8
Substitute Physiology 210 for GSA 208, 209	4
GSD 153 recommended	3
<i>Requirements for Major in Animal Industries</i>	53
Chemistry 344, 345, 346, and 347	11
Microbiology 301	4
Animal Industries 121, 122, 211, 215, 310 or 311a, 315, 332, and 381	17-18
Animal Industries electives including a minimum of two 400-level courses	12-13
Agriculture electives excluding Animal Industries	8
<i>Electives</i>	4
<i>Total</i>	120

Minor

A minor in animal industries is available to those interested in livestock production and care of companion animals. A total of 16 hours within the department is required. Courses may be selected from the areas of nutrition, hygiene, breeding and genetics, reproductive physiology, behavior, meats, and livestock production, including horses and pets. An adviser within the department must be consulted before selecting this field as a minor.

Courses

- 121-3 Science of Animals that Serve Mankind.** A general overview of dairy, meat animals (swine, beef, sheep), poultry, and horse industries with emphasis on how meat, milk, and poultry products are produced and distributed. The general application of genetic, physiologic, and nutrition principles for the improvement of animal production to further serve mankind. Prerequisite: concurrent enrollment in 122.
- 122-1 Production and Processing Practices of the Animal Industry.** Livestock facilities, demonstration of management practices of animals for human use and the processing of animal products. Can be taken without concurrent enrollment in 121. Elective Pass/Fail.
- 123-1 Practicum in Animal Production.** Laboratory in basic orientation, terminology, and practical experience in animal production. Designed for majors in agriculture who are from a non-farm background or have limited livestock experience. Enrollment limited. Prerequisite: consent of chairman. Mandatory Pass/Fail.
- 201-3 Care and Management of Pets.** Principles and practices of proper selection, feeding, and care of companion animals. Emphasis is placed on the dog and cat but other species are considered. Nutrition, health care, behavior, training, and reproduction are discussed. Elective Pass/Fail.
- 211-2 Anatomy, Growth, and Development.** Anatomy (gross and microscopic) and development processes of bone, muscle, and fat tissue of meat animals and the factors which influence their relative rates of formation during the growth process and thus alter body composition and product quality. Prerequisite: 121 recommended.
- 215-2 Introduction to Animal Nutrition.** An up-to-date study of basic principles of animal nutrition including classification of nutrients (physical and chemical properties) and their uses in order to provide the student a working knowledge of livestock nutrition in today's animal environment. Prerequisite: GSA chemistry or equivalent. Elective Pass/Fail.
- 220-2 Equitation.** Equitation as related to horse training and management. For students who have completed 319, have limited riding experience, and need equitation training to enter 419. Field trip. Enrollment limited. Additional costs \$15. Prerequisite: consent of instructor. Mandatory Pass/Fail.
- 257-1 to 10 Work Experience.** Credit given for on-campus work experience related to the student's major area of specialization as developed through the department and the Office of Student Work and Financial Assistance. Only 10 hours of credit may be taken in 257, or in any combination with 258. Prerequisite: consent of chairman. Mandatory Pass/Fail.
- 258-1 to 10 Prior Work Experience.** Credit given for work experience related to the student's major area of specialization prior to University entrance. Only 10 hours of credit

may be taken in 258, or in any combination with 257. No grade for prior work experience. Prerequisite: consent of chairman.

310-3 Meat, Poultry, and Milk Products as Related to the Consumer. Processing and distribution including inspection, grading, processing methods and merchandising as well as selection and preparation including pricing, storage or preservation, cooking, serving, and the contribution to a well-balanced diet of meat, poultry, and milk products. Field trip. Elective Pass/Fail.

311-4 (2, 2) Breeds, Classes, Grades, and Selection of Farm Animals and Poultry. (a) Discussion of breeds and classes of livestock, dairy and poultry; grading and selection of breeding and market animals and their carcasses or products. (b) Competitive judging and selection of livestock, dairy, or poultry. Field trips required. Participation on S.I.U. judging team is not a required part of this course. Must be taken in a,b sequence. Prerequisite: 121 recommended. Elective Pass/Fail.

315-3 Feeds and Feeding. Principles of applied animal nutrition. Ration formulation to meet specific nutrient needs of all classes of livestock. Feedstuff evaluation, including cost will be discussed.

319-3 Horses. An introductory course designed for students with interest in horses regardless of their major or background. Lectures, demonstrations, and laboratory work with horses provide basic information and terminology as well as principles and practices of proper selection, use, care, and management of horses. Field trip. Elective Pass/Fail.

331-3 Functions of Animal Systems. A course in the physiology of domestic animals. Various functions of mammalian organisms are discussed using the organ system approach. Human physiology is used as a basis to present the systemic functions of domestic animals. Differences in the functions of monogastric, ruminant, and avian species are presented.

332-3 Animal Breeding and Genetics. The application of basic principles of genetics and breeding systems to the improvement of farm animals and poultry. Prerequisite: 121 or biology. Elective Pass/Fail.

337-3 Animal Hygiene. Principles of prevention and control of infectious, nutritional, and parasitic disease of farm animals. Elective Pass/Fail.

359-2 to 6 (2 to 3, 2 to 3) Intern Program. Work experience program in animal production units and agricultural agencies of the government or agri-businesses. Prerequisite: junior standing and consent of chairman. Mandatory Pass/Fail.

380-1 to 6 Field Studies in Foreign and Domestic Animal Agriculture. A travel course to observe and study the operation and management of farms, ranches, and feedlots as well as agri-business firms supporting animal production such as food processors, feed manufacturers, and housing or equipment companies in either the United States or foreign countries. A written report is required. The travel fee charged to the student will depend on the nature and the length of the course. Elective Pass/Fail.

381-1 Animal Science Seminar. Discussion of problems and recent development in animal science. Prerequisite: junior-senior standing.

390-1 to 4 Special Studies Animal Industries. Assignments involving research and individual problems. Prerequisite: juniors and seniors only and consent of chairman. Mandatory Pass/Fail.

414-2 Animal Feed Quality Control. Laboratory procedures for nutrient determinations used in animal feed quality control. Prerequisite: course in chemistry recommended.

415-3 Monogastric Nutrition. Advanced principles and practices involved in meeting nutrient requirements of monogastric animals. Prerequisite: 215 and 315 recommended.

416-3 Ruminant Nutrition. Practical knowledge gained of problems associated with digestion, absorption, and metabolism of nutrients as related to domestic ruminants, horses and other pseudoruminants. Prerequisite: 215 and 315 recommended.

419-3 Stable Management and Horsemanship. Laboratory experience in routines of horse care, training, and management. Field trips. Additional costs \$5. Prerequisite: 319.

420-4 Commercial Poultry Production. Principles and practices of management of broilers, layers, and turkeys as adapted to commercial operations. Field trip. Prerequisite: 315 or consent of instructor.

421-2 International Animal Production. A study of world animal production practices with emphasis on the developing countries. Adaptability of animals to environmental extremes and management practices employed to improve productivity. Prerequisite: junior standing plus 121 or one year of biological science. Elective Pass/Fail.

430-4 Dairy Cattle Management. Application of the principles of breeding, nutrition, physiology, and economics to management of a profitable dairy herd. Breeds of dairy cattle, housing, milking practices, and quality milk production. Field trip. Students enrolled will incur field trip expenses of approximately \$25. Prerequisite: 315, 332.

431-4 Reproductive Physiology of Domestic Animals. Comparative anatomy and physiology of the male and female reproductive system of domestic animals; hormones, reproductive cycles; mating behavior; gestation and parturition; sperm physiology; collection and processing of semen; artificial insemination, pregnancy tests; diseases. Prerequisite: 121 or a course in physiology.

432-2 Quantitative Inheritance of Farm Animals. A review of the genetic principles underlying changes in animal breeding population; interpretations of gene frequency,

heritability, and genetic correlations; application of selection and breeding systems in farm animals. Prerequisite: 332. Elective Pass/Fail.

434-2 Physiology of Lactation. Anatomy and physiology of milk secretion; endocrine control; milk precursors and synthesis; milk composition; physiology and mechanics of milking, mastitis. Prerequisite: course in physiology.

455-2 Animal Waste Management. Acquaints the student with the scope and problems involved with animal waste management, current regulations and laws on environmental protection. Principles covering waste management technology and current livestock waste management systems are presented. Field trips will be scheduled. Prerequisite: junior standing.

465-4 Swine Production. Swine production systems and management techniques including breeding and selection, reproduction, nutrition, herd health and disease prevention, housing and waste management, marketing, production costs and enterprise analysis. Field trip. Prerequisite: 315 and 332 or consent of instructor.

480-3 Sheep Production. Breeding, feeding, and management of sheep. Field trip. Prerequisite: 315.

485-4 Beef Production. Beef cattle production systems and management, breeding and selection, reproduction, nutrition, and herd health with emphasis on the most economical and efficient systems. Field trip. Students enrolled will incur field trip expenses of approximately \$5. Prerequisite: 315 and 332 or consent of instructor.

500-3 Research Methods in Agricultural Science.

502-2 Surgical Research Techniques in Farm Animals.

506-3 Instrumentation Methods in Agricultural Science.

515-3 Energy and Protein Utilization.

516-3 Minerals and Vitamins in Animal Nutrition.

531-2 Livestock Management for Reproductive Efficiency.

581-1 to 2 (1, 1) Seminar.

588-1 to 8 International Graduate Studies.

590-1 to 3 Readings in Animal Industries.

593-1 to 3 Individual Research.

599-1 to 6 Thesis.

Anthropology (Department, Major, Courses)

Anthropology is the study of humans and their cultures in terms of universal features, variability, and development through time. The major subdivisions are socio-cultural anthropology, linguistics, archaeology, and physical anthropology. The student is expected to gain a broad background in all subfields, after which the options of further general study or specialization are available. Students are encouraged to supplement their anthropological studies with work in other social sciences, and where appropriate in biology, earth sciences, humanities, mathematics, or other areas.

Most professional anthropologists find employment as teachers and researchers in colleges and universities. However, a major in anthropology provides the student with a unique liberal arts background bridging the humanities, social, earth, and biological sciences, which leads to many other professional opportunities outside of teaching and research.

An anthropology major is required to take Anthropology 300A, B, C, D, and an additional nine hours of 400-level course work in anthropology. Those students interested in advanced degrees will be advised to take Anthropology 400A, B, C, D (total 12 hours) with the remainder of the hours as electives. It will also be made clear that graduate departments normally require at least one foreign language and some mathematical background. Those students not interested in advanced study will be advised on an individual basis reflecting their own particular interests and aspirations.

Students with exceptional scholarly promise may be invited into the departmental honors program, which includes an honors seminar and the writing of an honors thesis under the direction of a departmental faculty member.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements 45

<i>Supplementary College Requirements (See page 70)</i>	(4) + 8-14
<i>Requirements for Major in Anthropology</i>	32
Anthropology 300A, 300B, 300C, and 300D required, and an additional nine hours of 400-level course work in anthropology.	
<i>Electives</i>	29-35
<i>Total</i>	120

Minor

A minor in anthropology consists of at least 15 hours including at least two of the four courses: 300A, 300B, 300C, 300D, and a minimum of three of the remaining nine hours at the 400 level.

A minor in anthropology for students interested in museum studies may be earned by taking a designated series of museum-oriented courses offered by the Departments of Anthropology, Geology, History, and the School of Art. Required courses for the minor are drawn from the following: Anthropology 450a,b; Art 207, 447; Geology 445; and History 497, 498.

Courses

221-3 The Anthropology of Sexual Behavior. Introduces the student to general primate ethology where sexual behaviors are seen to be a function of band needs. Patterns of sexuality are then examined on a cross-cultural basis where attitudinal and cultural distinctions between men and women are related to socio-cultural needs and pressures. The course will conclude with an examination of modern western sexism.

225-3 Separate Realities. The focus of this course is on an anthropological approach to other realities. The works of Castaneda and Bourguignon, among others, are considered, and the functions of these states in societies, including our own, are dealt with.

231-3 Folklore and Modern Life. The folklore of a culture influences both the unconscious and conscious actions of people in subtle ways and each study helps to account for both the good and the bad which we see in ourselves and in others. The course introduces the student to the study of folklore and serves to emphasize the importance of the study of folk beliefs and their role in understanding our and other contemporary societies.

241-3 Slaves and Slavery in New World Societies. Focuses on slavery and slave systems in New World societies from a comparative historical and social anthropological/sociological perspective.

251-3 Anthropology and Science Fiction. An examination of the basic concepts of anthropology viewed through the prism of science fiction literature.

300A-3 Introduction to Physical Anthropology. Man as a biological being, his relationships to other living things. Evolutionary theory, human origins and development. Concept of race and the living races of man, human genetics, and variation.

300B-3 Introduction to Linguistic Anthropology. Introduces the concept of culture as revealed through human language. Provides both theory and methodology basic to linguistics and non-linguistic specialists within anthropology.

300C-3 Introduction to Archaeology. Theory and method of anthropological archaeology for non-majors and majors.

300D-3 Introduction to Social-Cultural Anthropology. Ways in which humans organize themselves for action. Emphasis will be on the social anthropological approaches to problem definition and theory. Comparative and functional analysis of kinship, economic, political, religious, and legal systems of non-Western cultures.

304-3 Origins of Civilization. A study of complex environmental and cultural factors that led to a rise and fall of early high-cultures. The course will concentrate in alternate years on the Old World (Africa and Euro-Asia) and the New World (North, Middle, and South America).

310A-3 Peoples and Cultures of North America. Survey of the cultural history of North America north of nuclear Meso-America; comparison of major cultural areas and tradition on the basis of social and cultural institutions.

310B-3 Peoples and Cultures of Latin America. The biological and cultural history of man in Latin America.

310D-3 Peoples and Cultures of Europe. The biological and cultural history of man in Europe.

310E-3 Peoples and Cultures of the Caribbean. Focuses on the social history, contemporary local institutions, and customs of Caribbean peoples. Emphasis is placed on Afro-American populations in the English- and French-speaking areas, although Dutch and Spanish areas are also treated, as well as populations of European and East Indian ancestry.

310F-3 Peoples and Cultures of Oceania. Ethnographic survey of Oceania including the indigenous inhabitants of Polynesia, Micronesia, Melanesia, and Australia. Historical coverage ranges from time of initial contact to the present day political, economic, and social organization.

310G-3 Peoples and Cultures of Sub-Saharan Africa. Focuses on the traditional societies and institutions of Black Africa from a comparative perspective. Some attention is paid to pre-colonial history and contemporary socio-cultural issues in the modern nation-states of Sub-Saharan Africa.

310H-3 Peoples and Cultures of The Near East and North Africa. A survey of the archaeology, ethnohistory, linguistics, and ethnology of the peoples of the Near East and North Africa.

310I-3 Peoples and Cultures of Asia. A survey of the archaeology, ethnohistory, linguistics, and ethnology of the peoples of Asia.

315-4 Anthropological and Documentary Films. A survey of the world's peoples and cultures through the medium of anthropological and documentary films. Elective P/F.

376-2 to 8 Independent Study in Classical Studies Program. (See Classical Studies 496.) Elective Pass/Fail.

400A-3 Current Problems in Physical Anthropology. The collection, analysis and interpretation of data on human populations. Problems in the study of human populations, including inbreeding, natural selection, fertility, drift and migration. Prerequisite: 300A for undergraduates or consent of instructor.

400B-3 Current Problems in Linguistic Anthropology. Presentation and discussion of ongoing developments in theory and methodology in linguistic anthropology. Prerequisite: 300B for undergraduates or consent of instructor.

400C-3 Current Problems in Archaeology. Detailed consideration of various aspects of current directions in archaeological method and theory. Prerequisite: 300C for undergraduates or consent of instructor.

400D-3 Current Problems in Social-Cultural Anthropology. A survey of current problems in the description and analysis of non-Western social systems. Prerequisite: 300D for undergraduates or consent of instructor.

401-3 Language and Culture. Linguistics and the study of culture in relation to animal communication, language acquisition, linguistic typology and universals, ethnosemantics and sociolinguistics. Prerequisite: 300B for undergraduates or consent of instructor.

402-3 Man and Culture. Offered primarily for non-anthropology majors. Focuses on the nature of culture and cultural processes with emphasis on the relationship of cultural behavior to man as an individual and as a group.

404-3 Technology and Anthropology. An introduction to the basic ways in which Man utilizes the natural resources of his habitat to meet his various needs, such as food, shelter and transportation. Consideration will be given to the types of materials used and the tools and appliances manufactured by non-Western peoples to meet their needs.

405-3 Art and Anthropology. The nature of art, its locus in culture, its integration in society as exemplified in world cultures.

406-3 Conservation Archaeology. The method and theory of archaeology in relationship to local, state, and federal laws regarding the protection and excavation of antiquities. Emphasis is on problem-oriented survey and excavation, as well as the preparation of archaeological contracts and the writing of reports to satisfy statutes involving environmental concerns. Prerequisite: 300C or 400C or consent of instructor.

409-3 History of Anthropology. The development of anthropological thought from the Age of Discovery to the present. The emphasis will be on the intellectual and social milieu which fostered general and specific conceptual views and methods. Considered are developments in the several major subfields of anthropology including archaeology, anthropological linguistics, human biology, and cultural anthropology. Required for all anthropology graduate students. Prerequisite: None. 300D recommended for undergraduates; 400D or equivalent recommended for graduate students.

410A-3 Applied Anthropology. The practical applications of theoretical social anthropology. Problems of directed culture change are examined from an anthropological perspective as they apply to the work of the educator, social worker, extension agent, administrator and others who are attempting to guide change in the life ways of others in Western culture and the third world. Prerequisite: none. 300D recommended for undergraduates.

410B-3 Educational Anthropology. An examination of the cultural processes of formal and informal education, the use of anthropological premises in educational program design, bicultural-bilingual education programs, comparative American-non-American systems, and the teaching of anthropology. Prerequisite: none. 300D recommended for undergraduates.

410C-3 Economic Anthropology. The study of non-Western economic systems. Prerequisite: none. 300D recommended for undergraduates.

410D-3 Anthropology of Folklore. A comparative study of the role of folklore in various cultures of the world, with emphasis upon nonliterate societies. Analysis of motifs, tale-types,

themes and other elements; comparisons between nonliterate and literate groups. Prerequisite: none. 300D recommended for undergraduates.

410E-3 Anthropology of Law. Anthropological thought on imperative norms, morality, social control, conflict resolution and justice in the context of particular societies, preliterate and civilized. Law of selected societies is compared to illustrate important varieties. Prerequisite: none. 300D recommended for undergraduates.

410F-3 Anthropology of Religion. A comparative study of (religious) belief systems, with emphasis upon those of non-literate societies. Examination of basic premises and elements of these belief systems, normally excluded from discussions of the "Great Religions". Prerequisite: none. 300D recommended for undergraduates.

410G-3 Psychological Anthropology. Similarities and differences in personality structures cross-culturally including the historical development of this as an anthropological subdiscipline. Prerequisite: none. 300D recommended for undergraduates.

410H-3 Ethnomusicology of Oceania, Asia and Africa. A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Oceania, Asia and Africa.

410I-3 Ethnomusicology of Middle East, Europe and the New World. A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Europe and the New World.

410J-3 Kinship and Social Organization. Universal features of non-Western systems of kinship terminology and social organization. Topics include the structure and functioning of kinship systems, lineages, clans, sibs, phratries, moieties, and tribal units. Prerequisite: none. 300D recommended for undergraduates.

420-3 to 9 Advanced Studies in Languages of the World. Attention given to language families, focusing on studies of linguistic history, genetic relationships, and typological classification. Any one semester will concentrate on language of a major geographical area. Prerequisite: 300B or 400B or consent of instructor.

425-3 Cognitive Anthropology. The theory of culture as cognitive organization is explored. Among the topics are: Formal analysis of lexical domains, folk classifications and strategies, the problem of psychological validity, linguistic determinism and relativity, biogenetic and psycholinguistic bases of cognition, and the "new ethnography".

430A-3 Archaeology of North America. Detailed study of the early cultures of North America. Emphasis on the evolutionary cultural development of North America. Prerequisite: 300C or 400C or consent of instructor.

430B-3 Archaeology of Meso-America. Detailed study of the early cultures of Meso-America with emphasis on the evolutionary cultural development of Meso-America. Prerequisite: 300C or 400C or consent of instructor.

430C-3 Archaeology of the Southwest. Detailed study of the early cultures of the Southwest with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.

430D-3 Archaeology of the Old World. Detailed study of the early cultures of the Old World with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.

440A-3 Human Evolution. An advanced consideration of the fossil evidence for human evolution and evaluation of the various theories regarding the course of human evolution. Prerequisite: 300A or consent of instructor.

440B-3 Race and Human Variation. A consideration of the range, meaning and significance of contemporary human biological variation, including evolutionary and adaptive implications and the utility of the race concept. Prerequisite: 300A or consent of instructor.

441-3 Laboratory Analysis in Archaeology. Methods of analysis of archaeological data in a laboratory setting.

450-6 (3, 3) Museum Studies. A detailed study of museum operation to include (a) methodology and display and (b) administration, curation, and visits to or field work with area museums. Practical museum work will be stressed in both (a) and (b) and (a) must be taken before (b).

460-1 to 12 Individual Study in Anthropology. Guided research on anthropological problems. The academic work may be done on campus or in conjunction with approved off-campus (normally field research) activities.

480-3 Honors Seminar. Topics to be arranged by agreement of participating faculty and students. Not open to graduate students. Prerequisite: consent of department. Elective Pass/Fail.

495-6 to 8 Summer Ethnographic Field School. An eight-week field research training program in Southern Illinois communities. Students will attend seminars on campus and in the field, but the greater part of the time will be spent engaging in continuous team research under the direction of the faculty members involved in the program. Some form of cooperative living arrangement in the field will be organized. The program is open to advanced undergraduate and graduate students. Prerequisite: consent of instructor.

496-1 to 8 Field School in Archaeology. Apprentice training in the field in archaeological method and theory. Students will be expected to be in full-time residence at the field school headquarters off campus. Prerequisite: consent of instructor.

- 499-3 Honors Thesis.** Directed reading and field or library research. The student will write a thesis paper based on original research. Not open to graduate students. Prerequisite: consent of department. Elective Pass/Fail.
- 510-2 to 6 (2 to 3 per topic) Seminar in New World Archaeology.**
- 511-2 to 6 (2 to 3 per topic) Seminar in Meso-American Archaeology.**
- 512-2 to 6 (2 to 3 per topic) Seminar in Old World Archaeology.**
- 515A-3 Seminar in Social-Cultural Anthropology.**
- 515B-3 Seminar in Social-Cultural Anthropology.**
- 520-2 to 6 (2 to 3 per topic) Seminar in New World Ethnology.**
- 521-2 to 6 (2 to 3 per topic) Seminar in Ethnology of Latin America.**
- 522-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Oceania.**
- 523-2 to 6 (2 to 3 per topic) Seminar in Anthropology of Africa.**
- 545-2 to 6 (2 to 3 per topic) Seminar in Anthropological Linguistics.**
- 560-2 to 6 (2 to 3 per topic) Seminar in Comparative Social Organization.**
- 562-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Contemporary Peoples.**
- 565-2 to 6 (2 to 3 per topic) Seminar in Culture Change and Development.**
- 567-2 to 6 (2 to 3 per topic) Seminar in Anthropological Theory and Method.**
- 570-2 to 6 (2 to 3 per topic) Seminar in Art and Technology.**
- 571-2 to 6 (2 to 3 per topic) Visual Anthropology.**
- 576-2 to 6 (2 to 3 per topic) Seminar in Anthropological Research Design.**
- 581-2 to 6 (2 to 3 per topic) Seminar in Anthropology.**
- 585-1 to 12 (1 to 3 per semester) Readings in Anthropology.**
- 590-1 to 12 Internship in Conservation Archaeology.**
- 595-4 (2, 2) Field Methods in Ethnology.**
- 596-4 (2, 2) Field Methods in Archaeology.**
- 597-1 to 12 Fieldwork in Anthropology.**
- 599-1 to 6 Thesis.**
- 600-1 to 32 (1 to 12 per semester) Dissertation.**

Architectural Technology (Program, Major, Courses)

The continuing growth of the architectural profession requires large numbers of technicians whose training has provided a firm foundation for supporting roles in today's profession and the basis for skill development in emerging activities. The architectural technology program offers this training in a curriculum designed to produce the skills in highest demand in the market for newcomers to the profession. Appropriate general studies and field trips to architects' offices and projects supplement the technical offerings.

The intelligent, motivated student with mathematical, artistic, or manual skill will be most successful in the program. They should be prepared to spend about \$200.00 for equipment, supplies, and field trips.

Architects who hold professional degrees and have many years of professional and teaching experience constitute the faculty. The program has the official approval of the American Institute of Architects.

An advisory committee whose members are practicing architects chosen for their understanding of today's needs in the profession and their interest in education assists the faculty in maintaining a current curriculum. Members currently serving on the advisory committee are: Edward F. Bartz, Jr., FAIA, Hellmuth-Obata and Kassabaum, Belleville, William E. Gramley, AIA, Phillips-Swager Associates, Peoria, Frederick W. Salogga, FAIA, Salogga-Bradley-Likins-Dillow, Decatur, and William H. Stein, AIA, Fischer-Stein Associates, Carbondale.

Graduates will have an understanding of the design profession, design and production processes, and other components of the construction industry. Their usual point of entry into the profession is as draftsmen producing construction drawings. As they gain experience they may develop capabilities to accept more responsibility in such areas as project coordination, specification writing, estimating, various types of engineering, construction inspection, architectural design, and presentation.

There are also nonprofessional opportunities in the construction industry with manufacturers, material suppliers, contractors, and developers.

This associate degree program can be completed in two academic years at

Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Architectural Technology

GSD 101	3
School of Technical Careers 102, 105a,b, 107a,b, 153a,b,	14
Architectural Technology 111, 112, 113, 124, 125, 214, 215, 216, 217, 218, 220, 224, 225, 226, 229	60
Total	77

Courses

111-7.5 Architectural Drafting. Use of drafting instruments, lettering and linework; geometric construction, projections, sections and intersections; pictorial drawing, perspective, shades and shadows, and reflections. Lecture three hours. Laboratory nine hours.

112-3.5 Architectural Graphics. Freehand drawing; various techniques in black and white media; theory and use of color; delineation techniques in various color media. Lecture one hour. Laboratory five hours.

113-2 Architectural History. Study of influences upon, and ensuing development of architecture from the earliest examples to the present; review of the development of architectural practice to its current state. Lecture two hours.

124-6 Architectural Drawings I. Introduction to basic materials and components used in contemporary construction. A survey of manufacturing methods, available sizes, performance characteristics, quality, finishes and applications. Usage of vendor's brochures and standard references. Preparation of working drawings in light frame construction to practice current procedures, dimensioning, notation, design, correlation, with standard and creative detailing. Lecture three hours. Laboratory six hours. Prerequisite: 111.

125-4 Architectural Design I. Problem solving techniques in architectural design with emphasis on basic design principles, human scale, composition and presentation. Architectural problems of relatively small scope and simple nature; and introducing factors of circulation and environmental control. Lecture one hour. Laboratory five hours. Prerequisite: 111, 112, 113.

214-6 Architectural Drawings II. Continuing study of materials and practice in document preparation for construction of non-complex buildings using framing methods appropriate to various occupancy classifications. Investigation and use of local, state, and federal codes regulating health and safety. Construction techniques relating to criteria of permanence, low maintenance and budget requirements. Working drawings for low-rise buildings of commercial, industrial, educational, professional, or institutional character. Lecture three hours. Laboratory six hours. Prerequisite: 124.

215-4 Architectural Design II. Continuing study of architectural design in application of principles to projects of increased scope and complexity, with attention to research, site planning, and comprehensive feasibility. Presentations in various media. Lecture one hour. Laboratory five hours. Prerequisite: 125.

216-4 Architectural Engineering I. Elementary study of forces and force systems using graphical and mathematical solutions. Basic engineering concepts. Reactions, shear and moment diagrams. Axial, bending, and eccentric loading on beams and columns. Application of principles in design with wood, steel, and concrete. Floor and roof support systems using dead and live load calculations. Lecture four hours. Prerequisite: School of Technical Careers 105a,b, 107a,b.

217-2 Architectural Systems. Basic principles dealing with mechanical and electrical equipment of buildings. Familiarization with water supply and sanitation systems. Fundamentals of properties of heat, sources and transmission of various heating systems, air conditioning and purification systems. Introduction to vertical and horizontal transportation systems. Fundamentals of illumination and electrical systems. Fundamentals of acoustics and appropriate materials for reflection, attenuation, and isolation. Lecture two hours. Prerequisite: School of Technical Careers 107a,b.

218-3 Architectural Surveying. Use of surveyor's tape, transit, and level. Fundamentals of topography, area and volume calculations, site planning, and building layout. Lecture one hour. Laboratory three hours. Prerequisite: School of Technical Careers 105a,b.

220-2 Architectural Specifications. Function of specifications as a contract document. The relationship of specifications to architectural drawings. Organization and format. Content of various sections. Lecture two hours. Prerequisite: fourth semester status.

224-6 Architectural Drawings III. Continuing study of materials and practice in document presentation for construction of high-rise buildings of a more complex nature. Contemporary materials, components, and systems. Steel and concrete framing systems using short

and longspan steel joists, steel pans, pre and post tensioned precast components. Correlation with electrical, mechanical, and structural work. Lecture three hours. Laboratory six hours. Prerequisite: 214.

225-4 Architectural Design III. Continuing application of architectural design principles and procedures to projects of higher factor of usage, or greater scope and complexity of function and circulation. Continuing practice in presentation with various media. Lecture one hour. Laboratory five hours. Prerequisite: 215.

226-4 Architectural Engineering II. Continuing study of structural framing materials and systems. Design and investigation of framing components of wood, steel, and concrete. Usage of wood, steel, and concrete handbooks. Standard connections and fastening methods. Concrete design, quality control, and field inspection. Beams, columns, lintels, foundations, footings, and retaining walls. Lecture four hours. Prerequisite: 216.

229-2 Architectural Estimating. Estimating methods. Material lists and quantities. Material and labor costs. Factors affecting costs. Lecture two hours. Prerequisite: School of Technical Careers 105a,b.

Art (School, Major, Courses)

Undergraduate offerings in art provide both introductory and specialized experiences. The course of study offered, leading to the Bachelor of Arts degree with a major in art, offers the student the opportunity to specialize in drawing, painting, printmaking, sculpture, ceramics, metalsmithing, weaving, art education, art history, or general studio. The specialization in art education requires 51 hours in art. The specialization in art history requires 58 hours in art. The specialization in general studio requires 52 hours in art, and all other specializations require 72 hours in art.

Bachelor of Arts Degree, College of Communications and Fine Arts

A student majoring in art should select one of the following fields of interest by the end of his sophomore year: drawing, painting, printmaking, sculpture, ceramics, metalsmithing, weaving, art education, art history, or general studio.

ART MAJOR—DRAWING SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Art with Specialization in Drawing</i>	72
Art 100	8
Art 200, 201, 203	6
Art 204, 205, 206 (choice of one)	2
Art 107, 207, electives in art history	12
Art 301	8
Art 300	8
Art 400	12
Art electives	16
<i>Electives</i>	3
<i>Total</i>	120

ART MAJOR—PAINTING SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Art with Specialization in Painting</i>	72
Art 100	8
Art 200, 201, 203	6
Art 204, 205, 206 (choice of one)	2
Art 107, 207, electives in art history	12
Art 300	8
Art 301	8
Art 401	12

Art electives	16
<i>Electives</i>	3
<hr/>	
<i>Total</i>	120

ART MAJOR—PRINTMAKING SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Art with Specialization in Printmaking</i>	72
Art 100	8
Art 200, 201, 203	6
Art 204, 205, 206 (choice of one)	2
Art 107, 207, electives in art history	12
Art 300	4
Art 301	4
Art 302	8
Art 402	12
Art electives	16
<i>Electives</i>	3
<hr/>	
<i>Total</i>	120

ART MAJOR—SCULPTURE SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Art with Specialization in Sculpture</i>	72
Art 100	8
Art 200, 201, 203, 204, 205	10
Art 107, 207, electives in art history	12
Art 300	4
Art 303	8
Art 403	12
Art electives	18
<i>Electives</i>	3
<hr/>	
<i>Total</i>	120

ART MAJOR—CERAMICS, METALSMITHING, OR FIBERS/WEAVING SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Art with Specialization in Ceramics, Metalsmithing, or Fibers/Weaving</i>	72
Art 100	8
Art 200, 201, 203, 204, 205, 206	12
Art 107, 207, electives in art history	12
Art 300	8
Art 303	4
Studio specialization	20
Ceramics: Art 304, 404	
Metalsmithing: Art 305, 405	
Fibers/Weaving: Art 306, 406	
Art electives	8
<i>Electives</i>	3
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<i>Total</i>	120

ART MAJOR—ART HISTORY SPECIALIZATION

<i>General Studies Requirements</i>	49
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GSC 207 and 8 hours of foreign language (French or German); 4 hours of the foreign language will not count toward General Studies requirements.

<i>Requirements for Major in Art with Specialization in Art History</i>	64
Art 107	3
Art 207, 217	5
Art 307, 317, 329, 339, 349	15
Art 419, 429, 439, 447, 449, 467, 477	21
Studio	20
Art 100, 12 hours beyond 100-level	
<i>Electives</i>	7
<i>Total</i>	120

ART MAJOR—GENERAL STUDIO SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Art with Specialization in General Studio</i>	52
Art 100	8
Art 200, 201, 203, 204, 205, 206	12
Art 107, 207, electives in art history	12
Art electives	20
<i>Electives</i>	23
<i>Total</i>	120

Bachelor of Arts Degree, College of Communications and Fine Arts or Bachelor of Science Degree, College of Education

ART MAJOR—ART EDUCATION SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Art with Specialization in Art Education</i>	51
Art 100	8
Art 200, 201, 203, 204, 205, 206	12
Art 107, 207, electives in art history	9
Art 308, 318, 328	9
Art electives	13
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Total</i>	120

Minor

A total of 16 hours constitutes a minor. A total of 8 hours must be taken in Art 100. The student may elect to take any 200 level courses until the 16-hour requirement is satisfied.

Courses

Art education courses:	308, 318, 328, 338, 348, 408, 418, 428, 508, 518
Art history courses:	107, 207, 217, 307, 317, 329, 337, 339, 347, 349, 419, 429, 439, 447, 449, 467, 477, 507, 517
Studio courses:	100, 200, 201, 203, 204, 205, 206, 300, 301, 302, 303, 304, 305, 306, 319, 400, 401, 402, 403, 404, 405, 406, 414, 500, 501, 502, 503, 504, 505, 506, 514,
Independent study courses:	258, 259, 309, 499, 599
Other Courses:	457

100-8 (4, 4) Basic Studio. Introduction to fundamental technical process and conceptual experiences in art. (a) Two-dimensional art, (b) Three-dimensional art. Incidental expenses will be at least \$15.00 per semester. Note: 100a or b not sequential.

107-3 Fundamentals of Art. Basic experiences in the vocabulary, language, and theory of art.

200-2 Beginning Drawing. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of drawing. Incidental expenses will be at least \$10.00. Prerequisite: 100a, 107.

201-2 Beginning Painting. Course work to emphasize experience in materials techniques, processes, and ideas fundamental to the discipline of painting. Incidental expenses will be at least \$25.00. Prerequisite: 100a, 107.

203-2 Beginning Sculpture. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of sculpture. Incidental expenses will be at least \$25.00. Prerequisite: 100b, 107.

204-2 Beginning Ceramics. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of ceramics. Supplies and materials will be \$20.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 100b, 107.

205-2 Beginning Jewelry and Metalsmithing. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of jewelry and metalsmithing. Supplies and materials will be \$15.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 100b, 107.

206-2 Beginning Fibers. A studio course providing experimental form building experiences in basic woven, dyed, printed, stitched, and non-loom fabric structures, emphasizing expressive use of their varied two and three dimensional qualities. The development of skills, feeling for materials, awareness, understanding and appreciation of these arts are emphasized. Supplies and materials will be \$15.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 100b, 107.

207-3 Survey of Art History. A comprehensive survey of painting, sculpture, and architecture from prehistoric to present times.

217-2 Methodology of Art History and Criticism. Lecture, discussion, and presentation of the research tools of art history, art historical logic, and the methods of art criticism. Prerequisite: restricted to students specializing in art history.

257-1 to 30 Work Experience. Credit for concurrent structured or non-structured work performed which is related to the student's educational objective. Credit to be granted by department evaluation. Mandatory Pass/Fail.

258-1 to 30 Work Experience. Credit for past work performed which is related to the student's educational objective. Credit to be granted by departmental evaluation. No grade for past work experience.

259-2 to 16 Transfer Credit. Credit to be given for course work granted by any accredited educational institution, or vocational institution. Prerequisite: any work accepted for transfer credit in art must be granted with the approval of the appropriate faculty.

300-4 to 8 (4, 4) Intermediate Drawing. Use of technique, materials, and processes to develop a visual language in a personal way. Incidental expenses will be at least \$15.00 per semester. Prerequisite: 200.

301-4 to 8 (4, 4) Intermediate Painting. Use of technique, materials, and processes to develop a visual language in a personal way. Incidental expenses will be at least \$30.00 per semester. Prerequisite: 201.

302-12 (4, 4, 4) Beginning Printmaking. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to printmaking. (a) Etching: metal plate and constructive surface printing. Intaglio, metal, cardboard plate reliefs and collograph. (b) Lithography: introduction into plate and stone, including printing in black and white and color. (c) Introduction to silkscreen; photo methods, hand cut stencils and direct drawing. May be taken in any sequence. Supplies and materials will be \$25.00 per semester per student. Incidental expenses will be at least \$15.00 per semester. Prerequisite: 100a and b, 107.

303-8 (4, 4) Intermediate Sculpture. (a) Studio-practical and theoretical in figure modeling, mold-making, and reproduction processes. (b) Studio-practical and theoretical in metal casting, foundry technology, and metal fabrication. Incidental expenses will be at least \$25.00 per semester. Prerequisite: 203.

304-8 (4, 4) Ceramics-Intermediate. (a) Techniques: glaze calculation, body formulation, and aesthetic evaluation. (b) Use of techniques, materials, and processes to develop a visual language in a personal way. Supplies and materials will be \$30.00 per semester. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Must be taken in a,b sequence. Prerequisite: 204.

305-8 (4, 4) Jewelry-Intermediate. (a) Techniques in forming, fabrication, i.e., repoussé, chasing, and die forming. (b) Use of techniques, materials, and processes to develop a visual

language in a personal way. Supplies and materials will be \$25.00 per semester. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Must be taken in a,b sequence. Prerequisite: 205.

306-8 (4, 4) Intermediate Fibers/Weaving. Introduction to the art of weaving using simple as well as floor looms. Spinning and a continuation of work in non-loom fiber and fabric structure is encouraged with emphasis on personal expression and imagery. Supplies and materials will be \$30.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 206.

307-3 Ancient Art. A survey of the arts from the Classical World including the Aegean, Ancient Greeks, and Romans.

308-3 Theories and Philosophies of Art Education. Students are expected to show an understanding of philosophies and theories, general trends in art education programs and teaching methods, perceptual and psychological developments of children, adolescents, and adults via book and periodical evaluations, preparation of a term paper, lectures, discussions, and a self-instruction center tape-slide series.

309-2 to 12 Independent Study. To be used by majors in the School of Art to pursue independent research activities. Incidental expenses will be dependent upon the nature of the activity. Prerequisite: completion of all 100 and 200 level requirements in major area and consent of instructor.

317-3 Medieval Art. Survey of the arts beginning with the Fall of Rome through the Gothic period.

318-3 Curriculum and Administration in Art Education. Covers curricula, budgets, liaison with administrative community and professional organization. Also includes the design and development of learning environment. Incidental expenses will be at least \$10.00.

319-3 Art Studio for Non-Majors. General studio for the non-art major. Incidental expenses will be at least \$10 per semester.

328-3 Art Education Methods of Elementary and Secondary Schools I. Methods in art education as they pertain to the professional art teacher in elementary and secondary schools. Incidental expenses will be at least \$20.00.

329-3 19th Century Art. Survey of the arts in Europe from the French Revolution to the end of the century.

338-3 Art Education Methods for Elementary and Secondary Schools II. Methods of basic graphic and commercial art concepts as applied to elementary and secondary schools. Incidental expenses will be at least \$20.00.

339-3 Art Since 1945. A survey of the arts since World War II with the main emphasis on the shift of artistic innovation from Western Europe to the United States.

348-3 Fundamental Studies in Art Media, Curriculum and Philosophies.

349-3 Esthetics. General survey of historical and contemporary philosophies of the beautiful with particular emphasis upon their application to visual works of art.

400-2 to 16 Drawing I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-300-8. Graduates-consent of major adviser in appropriate art discipline.

401-2 to 16 Painting I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-301-8. Graduates-consent of major adviser in appropriate art discipline.

402-2 to 16 Printmaking I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-302-8. Graduates-consent of major adviser in appropriate art discipline.

403-2 to 16 Sculpture I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major adviser in appropriate art discipline.

404-2 to 16 Ceramics I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-304-8. Graduates-consent of major adviser in appropriate art discipline.

405-2 to 16 Metalsmithing I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-305-8. Graduates-consent of major adviser in appropriate art discipline.

406-2 to 16 Fibers/Weaving I. Art studio course directed toward helping the student develop a sense of visual organization through individual research in fibers/weaving while gaining skill and facility in the use of these materials and their use in the student's creative expression. Prerequisite: undergraduates, 306-8; graduates, consent of major adviser in appropriate art discipline.

408-2 to 9 (2 to 3, 2 to 3, 2 to 3) Basic Research in Art Education. Each student

demonstrates via class presentation, term papers and answers to exam questions a knowledge of basic research techniques and applications; important literature in the field of art education; broad research meanings; a theory of art education and material on behavioral objectives presented in class and via tape-slide self instruction programs.

414-2 to 16 Glassblowing I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-consent of instructor.

418-2 to 9 (2 to 3, 2 to 3, 2 to 3) Individual Teaching Methods. Each student demonstrates an understanding of individual teacher-directed self-evaluative teaching methods involving studio projects, teacher-student evaluative sessions, individual projects, lecture-discussions and a term paper. Incidental fee \$20.00 maximum.

419-3 17th and 18th Century Art. Painting, sculpture, and architecture in Europe from the Baroque period to the French Revolution.

428-3 Individual Problems in Art Education for Elementary Education Majors. Individual concentration on one studio discipline and its application to pre-school, elementary education, early childhood and special education. Incidental expenses will be at least \$20.00. Prerequisite: 348a.

429-3 20th Century Art to World War II. Painting, sculpture, and architecture in Europe from the turn of the century to 1945.

439-3 American Art to World War II. Painting, sculpture, and architecture in the United States from the Colonial period to 1945.

447-3 Introduction to Museology. A survey of museum and gallery techniques answering questions concerning contractual agreements, taxes, insurance, packing, shipping, exhibit design and installation, record systems, general handling, public relations, and sale of art works directed toward problems encountered by the artist outside the privacy of his/her own studio. Prerequisite: art major or consent of instructor.

449-3 Renaissance Art. Painting, sculpture, and architecture in Italy and Northern Europe during the Renaissance period and its culmination in 16th Century Mannerist Art.

457-3 Women in the Visual Arts. Consists of lecture, discussion, and research in the following areas: women artists in history and the contemporary art world, the image and crafts, and architecture. Screening fee will be \$10.

467-3 Critical Issues in Contemporary Art. An examination of the style and meaning of contemporary art in relation to the current political, social and cultural issues. Will include visual arts, architecture, and communications media.

477-3 Art of the Thirties. A study of American art (painting, sculpture, mural art, crafts, etc.) during the Great Depression. Special emphasis will be placed on the origins of governmental patronage of the arts; its success and failure.

499-2 to 16 Individual Problems. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Designed to adapt to student's individual needs in problem research. Can be used for interdisciplinary program flexibility. Prerequisite: consent of instructor.

500-2 to 16 Drawing II.

501-2 to 16 Painting II.

502-2 to 16. Printmaking II.

503-2 to 16 Sculpture II.

504-2 to 16 Ceramics II.

505-2 to 16 Metalsmithing II.

506-2 to 16 Fibers/Weaving II.

507-3 to 6 (3, 3) Reading in Art History.

508-2 to 9 (2 to 3, 2 to 3, 2 to 3) Research in Art Education.

514-2 to 16 Glassblowing II.

517-3 to 6 (3, 3) Concepts in Art History.

518-2 to 9 (2 to 3, 2 to 3, 2 to 3) Seminar in Art Education.

599-2 to 6 Thesis.

Asian Studies (Minor)

The Asian Studies program includes a variety of courses of the languages, civilizations, and contemporary issues of Asia. The program is intended to prepare a student for a number of career options with Asia interests. Through this program, a student may prepare for more advanced work on another campus, may develop a teaching specialty, or may broaden skills and knowledge which would be useful for professional and occupational interests in Asia.

A minor in Asian studies requires a minimum of 20 hours selected from a list of approved courses. Not more than eight hours may be taken in any one department for credit toward the 20 hours.

A student may major in Asian studies by means of the special major program of the University for the Bachelor of Arts degree. The student in this program has to meet University, General Studies, and the College of Liberal Arts requirements. The student's special major would not be approved unless he completes at least 30 hours selected from a list of approved courses with at least three disciplines included. Students interested in this program are encouraged to take at least two years of an Asian language.

Associate Degree Nursing (Program, Major [Nursing], Courses)

The Associate Degree Nursing program, offered through the Southern Illinois Collegiate Common Market, is developed as an open-curriculum model and is designed to provide career mobility for persons who have completed a practical nursing program or its equivalency through formal or informal methods. Students will be given an opportunity to validate past experiences through utilization of a comprehensive testing program.

Facilities limit enrollment to twelve full-time students, but since each student has different proficiencies, there is a possibility of openings during the academic year as students complete the requirements. In addition to gaining admission to the University, the applicant must demonstrate satisfactory levels of previous nursing skills and knowledge by taking the Psychological Corporation Pre-Entrance Examination for Schools of Nursing and Nursing Achievement Examinations prior to being admitted to the program. Requests for information should be directed to nursing, School of Technical Careers.

After assessment by the nursing faculty, an individualized prescriptive-type educational program will be developed with each student. Didactic instruction will be implemented mainly through a variety of multi-media teaching techniques with individualized assistance from the nursing faculty. Clinical experience will be gained through various cooperating hospital facilities in a designated geographical area of southern Illinois. Since the students will be traveling to several hospitals, it is essential that they have access to transportation. General education courses will be required in the areas of communication and social studies. The nursing courses follow a unique calendar, consequently the student's schedule will extend beyond the normal semester periods.

Additional expenses of approximately \$400.00 are required to cover textbooks, the cost of uniforms, the pre-admission examinations, liability insurance, workshops, and other items.

This program is designed to prepare the student for the practice of nursing as defined in the Illinois Nurse Practice Act and meets the requirements for accredited schools in associate degree nursing in Illinois.

Upon satisfactory completion of the program the student will be eligible to write the Illinois State Board Nursing Examination and to become a registered nurse. A registered nurse may be employed in private offices, school systems, hospitals and clinics, nursing homes, industrial health clinics, or other health care facilities.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Nursing

Graduation from an accredited school of practical nursing or equivalent—	
minimum required transfer of credit	30
General Studies: GSD (5 hours in 2 areas), GSB 202 and 203	12
Associate Degree Nursing 201, 202, 203, 204, 205, 206, 207, 208, 209,	

210, 211, 212, 213	30
Electives	3
<i>Total</i>	75

Courses

201-3 Introduction to Nursing and Science. Using the individualized modular approach to education this course introduces the student to the basic concepts which are the foundation for the nursing and integrated science curriculum. Emphasis is placed on the scientific principles, conceptual framework and threads which will guide the student through the program. These principles will be applied in selected clinical situations. Lecture one and one-half hours; laboratory three hours. Prerequisite: consent of instructor.

202-4 Maternal-Child Nursing Interventions. Utilizing principles from the physical, biological and behavioral sciences, this course is designed to give the student a basic knowledge of reproductive function, processes of the maternal cycle, and development of the newborns through age sixteen. The problem-solving approach will be applied to identified nursing problems in normal, specialized, and complex clinical situations occurring during the maternal cycle and from birth to age sixteen with special emphasis on concepts of the family. Lecture two hours; laboratory four hours. Prerequisite: 201.

203-4 Psychiatric Nursing Interventions. Designed to assist the student to learn more about mental health and mental illness. The problem-solving approach will be applied to identified nursing problems in specialized and complex clinical situations based on the conceptual framework with special emphasis on interpersonal relationships, principles of psychiatric nursing, psychosocial needs, and skills in therapeutic communications. Lecture two hours; laboratory four hours. Prerequisite: 201.

204-2 Neurological Sensory Nursing Interventions. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of neurological and sensory function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems in specialized and complex clinical situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

205-2 Dermatological Nursing Interventions. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of skin function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems in specialized and complex situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

206-2 Orthopedic Nursing Interventions. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of skeletal and muscular function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems with specialized and complex clinical situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

207-2 Genital-Urinary Nursing Interventions. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of genital-urinary function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems in specialized and complex clinical situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

208-2 Metabolic-Endocrine Nursing Interventions. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of metabolic-endocrine function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems in specialized and complex clinical situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

209-2 Community Health Nursing. Designed to help the student learn that health and well being of citizens in the community is an integral part of nursing. The problem-solving approach will be applied to identified health problems of clients in a variety of community clinical agencies and settings with special emphasis on community resources for special health problems, communicable diseases, problems accompanying disasters, and special problems of senior citizens. Lecture one hour; laboratory two hours. Prerequisite: 201.

210-2 Cardiovascular Nursing Intervention. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of cardiovascular function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems in

specialized and complex clinical situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

211-2 Respiratory Nursing Interventions. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of pulmonary function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems in specialized and complex clinical situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

212-2 Gastrointestinal Nursing Interventions. Utilizing principles from the physical, biological, and behavioral sciences, this course is designed to give the student a basic knowledge of gastrointestinal function and those disorders commonly encountered in nursing practice. The problem-solving approach will be applied to identified nursing problems in specialized and complex clinical situations based on the conceptual framework with emphasis on the comprehensive care of clients of all ages. Lecture one hour; laboratory two hours. Prerequisite: 201.

213-1 Nursing Today and Tomorrow. Leadership in nursing, transition into new graduate role and current issues in nursing are the integral components of the terminal course of this program. It will provide the successful student with practical experience utilizing all theory and knowledge of skills learned in the care of groups of patients. It is expected that the student will have learned to be a safe practitioner, function in group situations, relate to people of all ages, staff and patients, and effect change in the health care delivery system upon completion. Laboratory two hours. Prerequisite: consent of instructor.

Automotive Technology (Program, Major, Courses)

The fundamental objective of the automotive technology program at the School of Technical Careers is to provide students with an opportunity to obtain a solid foundation of knowledge, experience, and skills that will assist in job entry and career advancement in automotive service.

The automotive service industry has been and will continue to experience rapid changes in technology. Perhaps the greatest changes will occur within the next decade as more fuel-efficient, less polluting motor vehicles become more commonplace. To service today's vehicles and the vehicles of the future will require highly skilled service technicians who will be skilled in the technologies that have been unknown until just a few years ago. The skills that will be required will be varied and complex and will require service technicians to specialize in certain specific service areas.

This program recognizes the various needs of the industry and the needs of its future technicians and will offer an opportunity to obtain a solid foundation of knowledge and provide flexibility for a student to develop a specialty of the student's choosing.

During the first year, each student will be required to enroll in a series of core courses which will provide the student with the opportunity to obtain and develop those skills and technical information considered essential to all service technicians.

During the second year, the student may choose any four of seven possible areas. In most cases, these courses will deal with advanced instruction in areas covered in the core courses. In each case, however, the student will select the courses and, after completing this work and the general studies requirements, the student will be eligible for the associate degree.

Instruction in the automotive technology program is geared to a thorough presentation of basic fundamental concepts and reinforced with practical applications of those concepts with structured laboratory activities and service and diagnosis of live automobiles. In a vast majority of the courses all units studied will be working or operational units and dynamic testing of the units is an integral part of the course.

Additional expertise is provided to the program through an advisory committee composed of persons chosen for their knowledge of the field and their interest in

education. Current members are: Mr. Al Bradshaw, supervisor of service training, Chrysler Motors Corporation; Mr. R. E. Stone, district service manager, Oldsmobile Division, General Motors Corp., Mr. James Racz, DuPage County Highway Department, Mr. Donald Vogler, Vogler Ford, Carbondale, Mr. Harry Wiggs, Carbondale Auto Supply, and Mr. Jearl E. Nichols, Ford Motor Co., St. Louis, Mo.

The student should expect to spend about \$300 for a basic tool kit consisting of both domestic and metric tools and supplies.

The associate degree can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-instructional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Automotive Technology

GSD 101	3
School of Technical Careers 102, 105a, 107a,b, 108, 153a	12
Automotive Technology 101, 103, 105, 107, 115, 121, 123, 125, 127	32
Thirty hours of selected 200-level Automotive Technology courses	30
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Total	77

Courses

101-4.5 Automotive Engines and Fuel Systems Laboratory. Enables the student to learn the fundamental service techniques and procedures required to service current automotive engines through meaningful hands-on experience on live engines. The student will disassemble laboratory engines, inspect for wear and damage, and reassemble the engine to operating condition according to manufacturer's specifications. The student will also be given specific instruction regarding the adjustment, repair, and diagnosis of carburetors. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 121.

103-4.5 Brakes and Chassis Laboratory. Designed to provide the student with work experience performing various chassis, suspension, and brake services on live vehicles. Complete brake overhaul, front end rebuilding, wheel alignment, and wheel balancing are some of the tasks performed. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 123.

105-4.5 Engine Electrical Laboratory. Allows the student to apply the fundamental theories of electricity to the actual diagnosis and testing of the battery, charging, starting, and ignition systems. Hands-on experience on live and laboratory units is the basic part of this course. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 125.

107-4.5 Drive Trains Laboratory. Provides the student with hands-on experience in diagnosis and repair of the modern vehicle drive line. Service activities such as overhaul procedures for 3, 4, and 5-speed manual transmissions, clutch service, universal joint repair, drive line angle measurement, and complete differential repair will be included. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 127.

115-2 Related Shop Laboratory. Provides the student with an opportunity to learn and perform routine service operations and small repairs that are required of all automotive service personnel. Such topics as thread repairs, fasteners, drill sharpening, broken stud removal, copper and brass fitting identification and fabrication, and basic acetylene welding and brazing are examples of some of the course content. Theory-laboratory will be four clock-hours per week for eight weeks.

121-3 Basic Automotive Engines and Fuel Systems Theory. Explanation of the theory of operation and design characteristics of the four-stroke cycle gasoline engine as well as the basic automotive fuel system and carburetor. The different engine designs, basic carburetion and ignition, horsepower and torque computation, and related systems of engine operation are examples of some of the topics to be covered. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 101.

123-3 Brakes and Chassis Theory. Provides instruction in the physical laws of hydraulics and pneumatics and their application to the modern brake and steering systems. Included is the study of steering geometry and suspension service procedures. Also covered is brake diagnosis and repair, brake machining, and power brakes. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 103.

125-3 Engine Electrical Theory. Provides the student with an opportunity to learn the fundamental theories of electricity and to apply these fundamentals in the operation of batteries, cranking motors, solenoids, relays, alternators, generators, regulators, and ignition systems. Special emphasis is placed on meter use and sound diagnostic procedures.

Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 105.

127-3 Drive Trains Theory. Deals specifically with the units needed to transmit the power of the automobile from the engine to the rear wheels. Presents to the student such things as clutches, standard transmissions 3, 4 and 5-speed, propellor shafts and differentials, their principles of operation, theory involved, and repair procedures. Included in this course is also basic study of planetary gears and fluid couplings. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 107.

201-4.5 Automatic Transmission Laboratory. Permits the student to acquire practical experience in the service procedures required on automatic transmissions. Proper disassembly, inspection, measurement, and reassembly will be stressed along with dynamic testing on a dynamometer of the transmissions being serviced. Outside vehicles will be repaired with emphasis on proper diagnosis before repairs are performed. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 107, 127, and concurrent enrollment in 221.

203-4.5 Automotive Power Accessories Laboratory. Assists the student in developing a comprehensive understanding of the diagnostic and repair procedures required of the various comfort options and accessories commonly found on current production automobiles. Diagnosis and repair of automotive lighting systems and dash instrumentation will also be included. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 105, 125 and concurrent enrollment in 223.

204-4.5 Automotive Air Conditioning Laboratory. Provides the student with an opportunity to obtain practical experience in the actual service and diagnostic procedures required of all current air conditioning systems. Service activities presented will consist of all operations required of the refrigeration system including compressor rebuilding and the diagnosis and repair of factory-equipped systems. Laboratory will be 14 clock-hours per week for eight weeks. Prerequisite: 105, 125, and concurrent enrollment in 224.

205-4.5 Advanced Fuel and Emission Systems Laboratory. Students will diagnose, overhaul, and adjust the current domestic types of carburetors. Heavy emphasis will be on engine performance testing and diagnosis of engine malfunctions through the use of test equipment such as oscilloscopes and infra-red testers. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 225.

207-4.5 Advanced Brakes and Chassis Laboratory. Provides the student with the opportunity to acquire practical experience in the actual service of such things as power steering, steering columns, anti-skid brakes, load leveling devices, and total vehicle alignment. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 103, 123, and concurrent enrollment in 227.

208-4.5 Advanced Engine Laboratory. Allows the student the opportunity to develop those skills and service techniques that are considered essential to perform quality engine rebuilding. Service operations such as valve refacing, cylinder head, engine block, crankshaft, rod, and piston reconditioning are examples of activities that will be performed on live vehicles scheduled for this purpose. Diagnosis of engine mechanical failures and noises will also be emphasized. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 228.

209-4.5 Advanced Electrical Systems Laboratory. Designed to provide detailed instruction on the approved service procedures for diagnosis and repair of current ignition, charging, and starting systems. These activities will be performed on live vehicles and laboratory units. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 229.

221-3 Automatic Transmission Theory. An in-depth study of the current automatic transmissions offered by the major manufacturers. This course deals with the torque converter, planetary gear systems, methods of clutching, and hydraulic controls. Special emphasis will be placed on methods of diagnosis and repair of problems. Oil circuitry will be presented in detail. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 107, 127 and concurrent enrollment in 201.

223-3 Automotive Power Accessories Theory. Allows the student to obtain a sound understanding of the theory of operation of the various electrical accessories and popular comfort options. Examples of units studied are: power windows, power seats, windshield wiper motors, dash instruments, heated rear windows, body lighting and warning buzzer systems. Assisting the student to interpret electrical wiring diagrams will be emphasized. Theory will be six clock-hours per week for eight weeks. Prerequisite: 105, 125 and concurrent enrollment in 203.

224-3 Automotive Air Conditioning Theory. Allows the student to obtain in-depth instruction in the fundamental principles of refrigeration systems which are applicable to all current systems, plus the theory of operation of the various controls used on factory installed units. Such topics as the refrigeration cycle, temperature regulation, anti-frost controls, and air conditioning systems testing are examples of the material studied. Theory will be six clock-hours per week for eight weeks. Prerequisite: 105, 125 and concurrent enrollment in 204.

225-3 Advanced Fuel and Emission Systems Theory. Deals specifically with the theory of operation of most types of carburetors used on domestic automobiles. The emission control

systems and laws concerning automotive emission standards will also be a major topic of the course. Proper tune-up procedures to meet emission standards will be studied in detail. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 205.

227-3 Advanced Brake and Chassis Theory. An in-depth study of brakes and suspension systems to include such topics as power steering, steering columns, anti-skid brakes, load leveling devices, and total vehicle alignment. Theory will be six clock hours per week for eight weeks. Prerequisite: 103, 123, and concurrent enrollment in 207.

228-3 Advanced Engine Theory. Major emphasis will be on piston, rod, crankshaft, cylinder head, and combustion chamber designs of the modern automotive engine. The student will have the opportunity to apply the principles that are directly related to service operations, diagnosis, and repair of mechanical malfunctions of the engine. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125 and concurrent enrollment in 208.

229-3 Advanced Electrical Systems Theory. Emphasis will be on operation, diagnosis, and repair of under-the-hood electrical systems. Electronic ignition and charging systems will be studied in detail. Also in-depth instruction will be provided in the operation, diagnosis and repair of starter motors and starter control circuits. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 209.

Aviation Technology (Program, Major, Courses)

Skilled technicians are in demand in the aviation industry, both in airlines and general aviation. The industry demands people who possess a wide range of knowledge and ability provided by general education as well as special technical training.

The student learns reciprocating and jet powerplants, cabin environment and jet transport systems, hydraulics, fuel systems, ignition-starting systems, carburetion and lubricating systems, instruments, and powerplant testing in coordinated classroom and laboratory work. The program is fully accredited by the Federal Aviation Administration. Students who wish to qualify for the FAA airframe and powerplant license are required to take a two-course post-associate specialization.

Instruction is conducted at the Southern Illinois Airport between Carbondale and Murphysboro in a combination laboratory-classroom-hangar facility.

The student should expect to spend about \$225.00 for a tool kit and special study materials.

Executives in the aviation industry constitute an advisory committee which serves the program. Current members are: Robert R. Bethel, senior engineer, avionics department, McDonnell-Douglas Corp., St. Louis, Mo.; Raoul Castro, manager, aviation department, Marcor, flight operations, Chicago; R. Craig Christie, vice president, marketing, King Radio Corp., Olathe, Kansas; John P. Davis, assistant vice president, maintenance, Delta Air Lines, Inc., Atlanta, Ga.; Roy S. Davis, director, technical services, TWA, O'Hare International Airport, Chicago; Herbert Delker, captain, midwest region, United Air Lines O'Hare International Airport, Chicago; Carl W. Diehl, manager, logistics, Bell Helicopter Co., Fort Worth, Texas; Joseph Goetz, senior captain, pilot, TWA, Kennedy Airport, New York; Howard D. Gould, management consultant, Personnel and Industrial Race Relations Associates, Chicago; Robert J. Graham, supervisor, production control, American Air Lines, O'Hare International Airport, Chicago; Alfred E. Jordan, vice president, technical affairs, TWA, New York; A. Edward Langhorst, manager, aircraft engine group, Evendale Technical Training School, General Electric Co., Cincinnati, Ohio; Roy Levitt, assistant to the president, Roger Smith Aircraft, Aurora Airport, Aurora; Bud Meyer, director of purchasing, WASCO Aviation, Alton; C. Steven Nicely, manager, training division, product support, Douglas Aircraft Co., Long Beach, Calif.; William Norwood, captain, United Air Lines, Elk Grove Village; John J. Pitrus, manager, commercial marketing, Pratt and Whitney Aircraft, East Hartford, Conn.; John S. Winter, president, Systron Donner Corporation, Berkeley, Calif.; Frank H. Wood, supervisor, ramp operations de-

partment, United Air Lines, O'Hare International Airport, Chicago; and Phillip S. Woodruff, manager, aviation education, marketing division, Cessna Aircraft Company, Wichita, Kansas.

Associate in Applied Science Degree, School of Technical Careers

<i>Requirements for Major in Aviation Technology</i>	
GSD 101, 118, 153	8
School of Technical Careers 105a	2
Aviation Technology 110, 111, 112, 113, 201, 203, 204, 205, 210, 211, 212, 214, 215, 216	66
Elective (in social science)	5
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<i>Total</i>	81

Courses

110-4 Aircraft Structure-Fabrication and Repair. Students will be able to identify and select materials employed in aircraft construction. Using appropriate FAR's, they will demonstrate competence in repair of honeycomb, fiberglass, welded, wood, or fabric aircraft members. The student will inspect aircraft members for defects and, if necessary, inspect completed repairs for airworthy condition.

111-5 Materials and Metal Processing. Students will be able to identify, select, and inspect aircraft hardware and materials. They will be able to select and apply appropriate cleaning materials and to implement corrosion controls. They will become proficient in the use of precision measurement equipment and related inspection tools. They will be able to make appropriate sheet metal repairs using correct repair procedures, tools, and materials. They will be required to demonstrate correct use and interpretation of structural repair diagrams and correct interpretation of charts and tables from AC 43.13-1 pertaining to materials and methods.

112-4 Aircraft Electricity. Students will have basic knowledge of electricity generation, AC and DC circuitries, and controls. They will be able to solve problems associated with electrical measurement (AC and DC), circuit interpretations and inspection, aircraft electrical load analysis, circuit malfunctions, and circuit or component servicing. They will have as an introduction, a basic knowledge of aircraft electronics.

113-5 Aircraft Instruments and FAR. Students will have a knowledge of operation, installation, marking, and interpretation of synchro and servo systems, aircraft and power-plant instruments. They will be able to install, adjust, and calibrate these instruments in accordance with FAA and manufacturers' recommendations. They will be able to select and use FAA technical and legal publications in order to perform the duties of an aircraft technician. Lecture, 3 hours. Laboratory, 2 hours.

201-2 Applied Science. A general coverage of applied science and the physical principles of sound, fluid, and heat dynamics. Identification of and proper use of aircraft drawing symbols and schematic diagrams. Sketches of FAA major repairs and alterations to aircraft. Use of aircraft, blueprints, graphs, charts, and tables as applied to aircraft performance and engine power requirements.

203-5 Aerodynamics and Weight and Balance. Students will have a knowledge of flight theory and factors affecting aircraft in flight. They will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting faulty flight characteristics. Students will fully understand and solve problems of aircraft weight and balance. They will be able to perform weighing, computation of G.G., and establishing of equipment list.

204-4 Hydraulics (Aircraft). Students will have a knowledge of fluid theory and applied physics which relates to aircraft hydraulics. They will know the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. They will be able to test, inspect, troubleshoot, and service hydraulic systems and overhaul malfunctioning components in accordance with FAA and manufacturers specifications.

205-5 Cabin Environment and Jet Transport Systems. Students will understand the atmospheric variables at different altitudes and the basic equipment required to cope with these variables. They will be able to operate, identify, adjust, and locate common causes of malfunction in the cabin pressurization and air-conditioning systems. Using the available information, jet transport aircraft and simulated training panels, they will understand the operation of and be able to identify the components of flight control systems, landing gear, fuel, anti-icing, and fire detection systems. They will be able to compare and analyze aircraft systems of current jet transport aircraft and to diagnose and resolve malfunction problems. They will have knowledge of procedures for aircraft ground handling, APU operation, and system servicing.

210-7 A and P Electrical and Ignition System. Students will have a knowledge of the

operation, repair, inspection, and service of aircraft electrical systems and components. Using schematic diagrams and simulated training panels of modern jet transports, they will learn operations and perform troubleshooting of: the AC and DC electrical systems, power management, and position and warning systems. They will be able to identify and understand components for reciprocating and jet powerplant ignition systems and reciprocating starting systems. They will be able to time, overhaul, and troubleshoot the various components of each system.

211-5 Reciprocating Powerplant. Students will have a knowledge of construction, operation, and timing mechanisms associated with aircraft reciprocating powerplants. They will be able to disassemble, clean, measure, inspect, and reassemble a powerplant to airworthy condition in accordance with appropriate FAA and manufacturers regulations and practices.

212-5 Carburetion, Lubrication, and Fuel. Students will be able to demonstrate their competence in identifying fuel and oil system components and carburetors, understanding the operating principles of each. They will be able to inspect, adjust, troubleshoot, and overhaul these components according to manufacturers and federal regulations. They will be able to identify the grades of aviation fuels and lubricants and understand the characteristics and uses of each.

214-4 Propellers. Students will have a knowledge of the physical laws and design characteristics governing propeller operation. They will be able to identify components, troubleshoot, and adjust fixed and variable pitch propellers. They will maintain fixed pitch propellers, and the governor system for variable pitch propellers in accordance with FAA and manufacturers standards.

215-5 Powerplant Testing. Students will have an understanding of the correct procedures and precautions to be observed during engine installation, ground operation, and fuel and oil servicing. They will be required to inspect and troubleshoot reciprocating and jet engines for airworthy condition and interpret engine instrument readings to diagnose engine malfunctions.

216-6 Jet Propulsion Powerplant. Students will be able to apply and understand physics laws related to jet powerplants. They will be able to identify and understand the operation of jet engines and their components. They will be able to perform inspection, maintenance repair, troubleshooting, and adjustments of jet powerplants and accessories. They will be able to analyze engine performance and to interpret operational charts, graphs, and tables.

225-6 Aircraft Inspection. Students will be able to perform a 100-hour and an annual inspection of an aircraft. They will demonstrate knowledge of FAR's by checking appropriate AD's, classifying repairs, and pinpointing specific service problems. They will also complete the required maintenance forms, records, and inspection reports required by federal regulations. They will understand and be able to perform inspection under computerized aircraft maintenance programs.

230-6 Powerplant Inspection. Students will be able to perform periodic inspection of powerplants. They will demonstrate their knowledge of FAR and application of FAA AD's, Service Bulletins, and proper use of inspection equipment. They will use knowledge learned in the powerplant curriculum to perform malfunction analysis of powerplant and related systems. Live equipment is used on a return-to-service basis.

301-6 Helicopter Theory and General Maintenance Practices. The student will have in-depth knowledge of rotary wing aerodynamics, main and tail rotor systems, rotor blades, primary and secondary controls, and general maintenance practices to include inspection and nondestructive testing. Prerequisite: Federal Aviation Administration Airframe and Powerplant Technician licenses.

302-10 Helicopter General Maintenance Laboratory. The student will perform general maintenance on rotary wing main rotor systems, tail rotor systems, rotor blades, flight and powerplant controls to include malfunction analysis, tracking, static balancing, rigging, and repair. The student will perform general helicopter inspections and nondestructive testing including magnetic testing, dye penetrant testing, and boroscope inspection. Prerequisite: concurrent enrollment in 301.

304-6 Helicopter Power Train and Inspection. The student will have an in-depth knowledge of the operation, function and inspection of all rotational components of a rotary wing aircraft to include transmissions, gear boxes, drive trains, and drive shafts. Prerequisite: 301 and 302.

306-10 Helicopter Power Train Lab. The student will perform all functions of overhaul concerned with rotary wing transmissions, gear boxes, and drive trains. The student will demonstrate skills in disassembly, inspection, reassembly, discrepancy analyzation, vibration analysis, and dynamic balancing. Prerequisite: concurrent enrollment in 304.

Avionics Technology (Program, Major, Courses)

Avionics, or aircraft electronics, is a rapidly growing field requiring highly skilled technicians for work in the development, installation, and maintenance of the

sophisticated avionics systems required for effective utilization of modern day aircraft by the aviation industry.

The avionics technician finds opportunities for employment with the airline industry, general aviation, and in aircraft manufacturing, where he will install, maintain, test and repair airborne communications and navigation systems, airborne radar systems, and related equipment.

The avionics technology program combines resources of programs in electronics and aviation technologies. As a rule, the student will be enrolled for the first year in electronics courses, and for the final year in courses offered in the facilities of the aviation technologies division at the Southern Illinois Airport.

All instruction is programmed in a balanced combination of classroom lecture and actual "hands on" laboratory experience under the supervision of instructors who have extensive experience and expertise in their respective fields.

The student will have courses in basic direct current, alternating current, electrical power systems, airborne, auxiliary power systems, electrical generation and distribution, load transfer, solid state devices, aircraft communications and navigation systems, aircraft radar systems, aircraft flight control and instrumentation systems, aircraft integrated flight systems, UHF transmitters, receivers, and transceiver (including single sideband principles), pulse and microwave systems (including Doppler and inertial navigation systems), antenna types, wave propagation and transmission lines, and Federal Aviation Administration and Federal Communication Commission regulations.

Enrollment in the program is limited, so the prospective student should plan to make application well in advance of the session in which he plans to begin his studies.

In addition to regular University tuition and fees, the student is required to purchase basic tool kits and study material at an approximate cost of \$80.00.

Executives in the aviation industry constitute an advisory committee which services the program. The current members are listed under aviation technology and they serve both programs.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community colleges or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Avionics Technology*

GSD 101, 118, 153	8
Aviation Technology 113	5
Avionics Technology 233, 234, 235, 236, 237, 238	32
Electronics Technology 101, 102, 111, 112, 121, 122	28
School of Technical Careers 105a,b	4
Elective (Social Science)	3
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Total	80

*To meet Federal and industry requirements, the student should plan to take additional 300-level courses offered as a post-associate specialty.

Courses

232-10 Avionics-Electronic Circuits. Designed especially for students who have completed the Aviation Technology Program and wish to enter the Avionics Technology Program for a second major. Theory of operation of diode, practical rectifiers, DC to DC converter and airborne audio amplifier system both tube and transistor. Construction of basic avionic circuits and isolation of malfunctioning components. Perform repairs and testing of transistors and tube and tube type of avionic circuitries. Lecture eight hours, laboratory four hours. Prerequisite: Aviation Technology 210, Electronics Technology 102 and concurrent enrollment in Avionics Technology 233.

233-5 Aircraft Communication and Navigation Systems Theory. Students will have

knowledge of theory of operation, calibration and frequency selection of NAV-COM equipment. They will understand transceiver circuitries, closed frequency loop SCR circuits, audio amplifiers, inter-com systems, VOR navigation receivers, VOR converter, glide slope receivers, ADF receivers, and marker beacon receivers. They will be able to use avionics manufacturers maintenance and overhaul manuals and FAA regulations. Lecture five hours.

234-6 Avionics Laboratory II. Students will be able to identify systems components. They will be able to operate and calibrate test equipment. They will be able to troubleshoot and repair communication and navigation equipment, and to perform alignment of transceivers, navigation receivers, VOR converter, ADF receivers and marker beacon receivers. They will effectively perform modification and compliance of Service Bulletins and FAA Directives. Laboratory twelve hours.

235-6 Flight System Theory. Students will have knowledge of operation and installation of aircraft control, navigation, communication, syncro and servo systems. They will be able to determine if a system meets factory and FAA specifications. They will learn to use technical publications. Lecture, six hours.

236-5 Avionics Laboratory III. Students will be able to operate, install, adjust, troubleshoot, and repair automatic pilot, automatic stabilization systems, and integrated flight systems. They will be able to install, adjust, and troubleshoot flux gage compass, gyrosyn directional indicator, rate gyros, RMI repeater and attitude gyros. They will be able to use technical publications. Laboratory ten hours.

237-5 Avionics Logic Circuits and Pulse Systems Theory. Students will be able to analyze the use and operation of logic gates, gate expanders, invertors, flip-flops, shift registers, decade counters and operational amplifiers as used in avionics circuits. They will have knowledge of pulse circuits used in distance measuring equipment and ATC transponders. Lecture, five hours.

238-5 Avionics Laboratory IV. Students will be able to locate, identify, troubleshoot, and repair logic circuits used in avionics equipment. They will be able to test, calibrate, troubleshoot, and repair distance measuring equipment and ATC transponders in accordance with manufacturer and FAA Repair Station Guidelines. Laboratory, ten hours.

302-3 Avionics Laboratory V. Students will be able to conduct avionics loan analysis and perform weight and balance problems. Given a malfunction in an avionic system on the aircraft, they will be able to locate the faulty component, and to perform necessary repairs and to return equipment to airworthy status. Laboratory 12 hours.

303-2 FCC Regulations. The student will have knowledge of FCC requirements for aircraft station licenses, aeronautical ground station and operator's licenses. Lecture 4 hours.

304-4 Avionics Radar Systems Theory. The student will have knowledge of airborne radar system circuits, and understand the theory of operations of radar antenna system. The student will be able to perform installation, system performance check out, circuit adjustment, trouble shooting, and general repair of the airborne radar system.

Biological Sciences (Major)

The biological sciences major consists of courses selected from the Departments of Botany, Microbiology, Physiology, and Zoology. Students selecting biological sciences as their major do not need to take a minor. Besides enrolling in biological sciences courses, students are also required to take courses in chemistry and mathematics. Students should consult their advisers for additional information.

Bachelor of Arts Degree, College of Science

<i>General Studies Requirements</i>	45
<i>Supplementary College of Science Requirements</i>	8
Foreign Languages	(4) + 4
Mathematics 110a,b or 111 (or its equivalent), or 140	(4) + 1
Chemistry 224, 225	(4) + 3
<i>Requirements for Biological Sciences</i>	40
Physiology 210	4
Biology 305, 306, 307, 308, 309 (any two)	6
Botany 200 and 201, 204 and 205	8
Microbiology 301, 302	7
Zoology 220 a,b	8

Biological sciences electives at 400-level	7
Electives	27
Total	120

Bachelor of Science Degree, College of Education

Students planning to obtain their degree in the College of Education must satisfy all the requirements of that college. The requirements in biological sciences will be the same as those in the College of Science. Those students desiring to attain a secondary education teaching certificate must also enroll in Curriculum, Instruction, and Media 468. See Teacher Education Program, page 63.

Minor

A minor in biological sciences consists of a minimum of 24 hours and may be taken in the College of Education, the College of Liberal Arts, or the College of Science. It must include two of the following biology courses: Biology 305, 306, 307 (6 hours), plus 9 hours selected from the following courses: GSA 208, 209, 303, 312, 313; Botany 200, 201, 204, 205; Microbiology 301, 302; Physiology 410a,b; and Zoology 220a,b. The remaining nine hours may be selected from courses offered by the departments of botany, microbiology, physiology, and zoology. A student with a major in one of the life sciences may not take a minor in biological sciences.

Biology (Courses)

Courses

- 305-3 Genetics-Classical and Molecular.** Broad principles of genetics, including Mendelism, chromosomal behavior, genetic mapping and mutation, Allelism, genes and development, polygenic systems, inbreeding and outbreeding, and genetic applications.
- 306-3 Cell Physiology.** The basic functions of the cell are considered. The biochemical basis and mechanisms of the cellular processes, the functions of the subcellular structures, and their ramifications will be explored in the context of plant and animal cells.
- 307-3 Environmental Biology.** Broad principles of ecology on the organismic, the population, the community, and the ecosystem level. Includes environmental factors, adaptations, energy and material balance, succession, and human ecology.
- 308-3 Organismic Functional Biology.** Fundamental principles and biological examples of basic phenomena characteristic of organisms, including transport, integration, and reproductive systems. Details attention will be given to various organ systems with an emphasis on function.
- 309-3 Developmental Biology.** Principles of development; causal mechanisms, cybernetic and phylogenetic aspects. Lecture course.
- 315-2 History of Biology.** The interrelationships between the development of biological knowledge and the history of mankind.

Black American Studies (Minor, Courses)

Black American studies is a part of the Division of Social and Community Services. The Black American studies program will plan a program for a special major leading to the Bachelor of Science degree in the College of Human Resources. Any student interested in such a program should consult this catalog for an explanation of the special major, and then contact the academic counselor in Black American studies in order to plan and receive approval for the program. A minor in Black American studies consists of a minimum of 20 hours which are to be selected from Black American studies course offerings and organized according to each individual student's field of interest. An official minor is subject to approval by the coordinator of Black American studies.

Courses

209-3 Introduction to Black American Studies. A survey course providing students with insights into various disciplines and how these disciplines approach the Black American experience. Lecturers of diverse interests attend to specific and general problems in their field and hope to enlighten and expand the awareness of the need for scholarly study of Blacks.

225-3 Social Change in Africa. Examination of the interplay between tradition and modernity in an effort to understand the new Africa. Some of the forces of social change are analyzed. Other topics include African women and the family structure in change and the problems of African development.

230-3 Introduction to Black Sociology. An introductory course which focuses on the concepts of Black sociology in order to fill the gaps of "traditional sociology" pertaining to the Black experience. Designed to heighten the student's awareness of the Black identity and the sociological phenomena which affect it and acquaints the student with specific sociological problems in the study of Afro-Americans. Prerequisite: GSB 109.

257-1 Black American Studies Choir. Prerequisite: consent of instructor.

311-6 (3, 3) Black American History. (Same as History 372.) (a) Black American History to 1865; (b) Black American History since 1865. The black man's role and contribution in the building of America and the ongoing fight for equality.

314-6 (3, 3) History of Africa. (Same as History 387a;b.) (a) History of Africa. A study of West African peoples from earliest times to the present; including the era of kingdoms; the role of Islam; African-European relations; colonialism; and African nationalism. (b) History of East-Central Africa. A study of East and Central African peoples from earliest times to the present; including migrations and kingdoms; African-Arab-European relations, colonialism, and African nationalism.

320-3 Leaders of the Black World. A study of black rulers; statesmen; spokesmen; activists; and thinkers; both past and present; in Africa; the West Indies; and the United States, with emphasis on the effects of their philosophies on the black world.

330-3 Black American Social Problems. Comparative study of the social problems which afflict Black Americans and their consequences; including crime and delinquency, mental and emotional disorders, drug addiction, housing conditions, poverty and unemployment, and labor conditions. Prerequisite: consent of instructor.

332-3 Black Americans and the Law. Criminal deviancy and its consequences among Afro-Americans. Includes social history, immigration to America, and life conditions here.

333-4 The Black Family. Exploring the myths and realities of the black family from a sociological perspective. Prerequisite: 230 or junior standing.

336-4 The Black Personality. Examines current areas of interest in the study of the psycho/social characteristics of Black Americans. Theoretical and empirical data will be examined. Considers critical issues such as cognitive development; self-concept, socialization process and inter- and intra-group relations. Prerequisite: consent of department.

339-3 Black Americans and the Correctional Process. Analysis of selected topics: the prison community and the Black inmate; correction education and the Black inmate; and the Black professional. Prerequisite: 332.

345-3 Law and Civil Liberties. (See Political Science 332.)

350-3 Contemporary Black Drama. Surveys in the works of major and minor writers of contemporary Black dramas from *A Raisin in the Sun* to *No Place to Be Somebody*. Explores recent criticism on Black theater, and approaches oral and written criticism from the point of view of "Black aesthetics." Prerequisite: GSC 201, GSC 203, or consent of department.

355-3 The Black American Novel Since *Native Son*. The Black American novel and its major themes since Richard Wright's *Native Son*. Includes such authors as Baldwin, Petry, Williams, etc. Prerequisite: GSC 210, GSC 325, junior standing, or consent of instructor.

357-3 Blacks in the Performing Arts. History of the role of blacks in the performing arts covering dance companies, ballet, folk dance and Black dramatists; cinema, in all its forms; radio and television; and music (spirituals, jazz, opera, classics, etc.) Prerequisite: GSC 325, or consent of department.

358-3 Black Theater Workshop. Designed to train students in the arts of the theater. While major emphasis is placed on acting techniques, opportunities for training in makeup design and oral interpretation are also provided.

362-3 The Music of Black Americans. (See Music 372.)

370-3 Bibliography of Black American Studies. An introductory survey of Black American bibliographic resources course, culminating with students' compilation of a selective, annotated bibliography covering some chosen aspect of the black experience. Prerequisite: junior or senior standing or consent of instructor.

380-2 Regional Geography of Sub-Saharan Africa. (See Geography 365.)

385-4 Myth and Ritual in Archaic Religion. (See Religious Studies 333.)

391-2 Social Services and Minority Groups. (See Social Welfare 391.)

395-3 Investigative Procedures and Techniques for the Affirmative Action Officer. Designed to provide students with the basic skills of investigating equal employ-

ment opportunities and affirmative action complaints that might be filed by one who feels discriminated against in the hiring process and upward mobility within an agency. Study and research of existing cases filed with FEPC and EEOC.

399-3 to 5 Independent Study in Black American Studies. Independent study which examines problems and issues not covered in a specific course. Hours and subject matter decided during consultation with a faculty member. Prerequisite: consent of instructor. Elective Pass/Fail.

430-3 Black Political Socialization. Definitive approach to how people learn about politics focusing on Blacks because of their unique experience; i.e., prolonged minority group status. Research oriented, in that, it takes an explanative and predictive approach to produce models of political learning. Not for graduate credit. Prerequisite: 230, junior or senior standing, or consent of department.

445-3 Race and Politics. (See Political Science 429.) Not for graduate credit.

455-2 to 12 Rehabilitation Services with Special Populations. (See Rehabilitation 445.)

465-3 Governments and Politics of Sub-Saharan Africa. (See Political Science 465.) Not for graduate credit.

475-3 Sociological Effects on Black Education. A teacher-oriented course dealing with up-to-date research in Black and minority education. The instructor utilizes the findings of current periodicals to present models for understanding and communicating with Black children. Not for graduate credit. Prerequisite: Education 303 or consent of department.

480-4 to 8 (4, 4) Seminar in Black Studies. Analysis of the black experience directed toward practical contributions in the area studied. Topics vary with instructor. May be repeated once for a total of eight credits provided registrations cover different topics. Topics announced in advance. Prerequisite: GSB 109 or consent of department.

490-1 to 3 Cross-Cultural Rehabilitation. (See Rehabilitation 419.) Not for graduate credit.

499-1 to 5 Special Readings in Black American Studies. Supervised readings for students with sufficient background. Registration by special permission only. Offered on demand. Prerequisite: consent of instructor.

Botany (Department, Major, Courses)

Botany is a broad science that includes many specialities. A major in botany should be considered by those wishing to specialize in teaching and/or research in the plant sciences and related fields.

Students planning to major in botany should consult with the chairman of the department for information concerning the programs in the department.

As a general rule, students who intend to apply for admission to a graduate school to study for an advanced degree in botany should include the following in their undergraduate program: inorganic and organic chemistry, mathematics through calculus, a modern European language, and as many botany and biology courses as time and scheduling will permit.

An honors program is available to those juniors and seniors in botany who have an overall grade point average of 3.00 or better and an average in Botany courses of 3.25 or better. Honors students should enroll in Botany 492 during some semester in both junior and senior years.

Bachelor of Arts Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>Supplementary College of Science Requirements</i>	7
Foreign Language	(4) + 4
Mathematics 110a, b or 111 (or its equivalent), or 140	(4) + 1
Physical Sciences (Not General Studies)	(4) + 2
<i>Requirements for Major in Botany</i>	43-48 ²
Biology 305, 307	6
Botany 200, 201, 204, 205, 304, 320, 335, 337	19
Botany electives (to be selected from Botany offerings excluding Botany 160, 258, 259, 462, 490, 491; and may include up to a total of 6 hours selected from	

Botany 390, 391, and 492)	16
Chemistry	(6) + 2-7 ³
Option A: Chemistry 140a,b	
Option B: Chemistry 224, 225, 340, 341	
Electives	20-25
Total	120

¹The 45-hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

²Botany requirements satisfy the biological and physical sciences requirements for the College of Science and may be substituted for a maximum of 12 hours in General Studies.

³Option B is recommended for those interested in plant physiology or graduate study.

Bachelor of Science Degree, College of Education

Students planning to obtain their degree in the College of Education must satisfy all the requirements of that college. The requirements in botany must total 32 semester hours, including Botany 200, 301, 204, and 205. Those students desiring to attain a secondary education teaching certificate must also enroll in Curriculum, Instruction, and Media 468. See Teacher Education Program, page 63.

Minor

A minor in botany consists of a minimum of 16 semester hours, selected from any botany offerings except 390, 391, 462, or 492.

Courses

For all field courses in botany, students will be assessed a transportation fee. In addition, certain courses may require the purchase of additional materials and supplies, generally \$1 to \$5 in total cost.

160-3 Integrated Science—A Process Approach. An interdisciplinary science course stressing processes of science; observing, classifying, using numbers, measuring, using space-time relationships, communicating, predicting, inferring, defining operationally, formulating hypotheses, interpreting data, controlling variables, and experimenting.

200-3 General Botany. An introduction to botany. Emphasis is placed on structure and development and associated physiological phenomena. Consideration also is given to basic aspects of plant genetics, classification, evolution, ecology, and conservation.

201-1 General Botany Laboratory. Exercises in observation and experimentation on plant structure and development and associated physiological phenomena. Prerequisite: 200 or concurrent enrollment.

204-3 Botany—Plant Diversity. An evolutionary approach to the study of major plant groups—algae to flowering plants. Emphasis will be given to practical aspects of various plant groups in relation to Man and his environment. Prerequisite: 200 or consent of instructor.

205-1 Botany—Plant Diversity Laboratory. Cytological, anatomical, and morphological study of selected representatives of major plant groups. All labs are coordinated with lectures in 204. One two-hour laboratory per week. Prerequisite: 204 or concurrent enrollment.

257-2 to 8 Concurrent Work Experience Credit. Practical experience in a laboratory or other work directly related to course work in the botany program and to the student's educational objectives may be used as a basis for granting credit in botany. Credit for ongoing work experience must be arranged prior to registration, is sought by petition to the department chairman via the departmental undergraduate adviser, and requires the approval of the department chairman, the executive officer of the student's major program if other than botany, and the dean of the College of Science. Mandatory Pass/Fail.

258-2 to 8 Previous Work Experience Credit. Practical experience in a laboratory or other work directly related to course work in the botany program and to the student's educational objectives may be used as a basis for granting credit in botany. Credit for past work experience is sought by petition to the department chairman via the departmental undergraduate adviser and requires approval of the department chairman, the executive officer of the student's major program if other than botany, and the dean of the College of Science. No grade for past work experience.

259-2 to 8 Vocational Education Credit. Formal, post-secondary educational credit earned in a military service or other vocational technical or occupational program and

directly related to the student's educational objectives may be used as a basis for granting credit in botany. Credit is sought by petition to the department chairman via the departmental undergraduate adviser and requires approval of the department chairman, the executive officer of the student's major program if other than botany, and the dean of the College of Science.

304-3 Plant Classification. Identification of local flora by use of various manuals. Survey of taxonomy and nomenclature. Every semester. Prerequisite: 200 or equivalent.

308-3 Taxonomy of Cultivated Plants. Identification of woody and herbaceous cultivated plants and discussion of their use as ornamentals. Prerequisite: consent of instructor.

320-4 Elements of Plant Physiology. The functions of plants and their relation to the various organs. Two lectures and four laboratory hours per week. Every semester. Prerequisite: 200; organic chemistry or a minor in chemistry.

335-2 Methods in Genetics. Selected organisms and techniques illustrating genetic principle. Two two-hour laboratories per week. Prerequisite: Biology 305 or equivalent.

337-2 Ecology Laboratory. Techniques in vegetation analysis and environmental measurements. One four-hour laboratory per week. Prerequisite: Biology 307 or equivalent.

390-1 to 3 Readings in Botany. Individually assigned readings in botanical literature. Every semester. Prerequisite: consent of departmental chairman.

391-1 to 4 Special Problems in Botany. Individual laboratory or field work under supervised direction. Every semester. Prerequisite: consent of departmental chairman.

400-4 Plant Anatomy. An introduction to cell division, development, and maturation of the structures of the vascular plants. Laboratory. Prerequisite: 200 or consent of instructor.

404-4 The Algae. A phylogenetic approach to the study of algae with emphasis on comparative cytology, morphology, and ecology. Laboratories include a detailed survey of freshwater algae and a general treatment of representative marine forms. Two lectures and two two-hour laboratories per week. Prerequisite: 204 and 205 or consent of instructor.

405-4 The Fungi. A survey of the fungi — their structure, development, relationships, ecological roles, and economic importance. Two lectures and two laboratories. Prerequisite: 204 or equivalent.

406-3 Bryology. Structure, development, and relationships of the liverworts, hornworts, and mosses. Two lectures and one laboratory per week. Prerequisite: 204 or equivalent.

409-3 Field Mycology. The taxonomy, ecology, and distribution of fungi in southern Illinois and environs with emphasis on techniques of specimen collection, preservation, identification, and recognition. Prerequisite: 200; 204 recommended.

410-3 Taxonomy and Ecology of Bryophytes and Lichens. Floristic studies of the moss, liverwort, hornwort, and lichen communities of southern Illinois. Prerequisite: 200 or equivalent, or consent of instructor.

411-4 Morphology of Ferns and Fern Allies. The study of external form, internal structure, and relationships of ferns and fern allies, living and extinct. Two lectures and two laboratories per week. Prerequisite: 204.

412-4 Morphology of Seed Plants. The study of external form, internal structure, and relationships of gymnosperms and angiosperms, living and extinct. Two lectures and two laboratories per week. Prerequisite: 204.

414-1 to 2 Paleobotany. (Same as Geology 414.) The development of skills in paleobotany through the pursuances of specific laboratory or library research problems. Prerequisite: 400 or consent of instructor.

421-4 Botanical Microtechnique. Introduction to practical methods of preservation and preparation of plant materials for laboratory and microscopic study. Paraffin and plastic embedding and sectioning techniques, and use of general and histochemical stains stressed. Includes chromosome squashing, whole-mount preparation, photomicrography, and other techniques. One lecture and three laboratories per week. Prerequisite: 200 or equivalent.

425-10 (5,5) Advanced Plant Physiology. (a) Intermediary plant metabolism. Characterization of the photosynthetic and metabolic pathways of biosynthesis and degradation of organic constituents; role of environmental regulants of plant metabolism. (b) Physics of plants; membrane phenomena; water relations; mineral nutrition. Prerequisite: 320 and consent of instructor.

440-3 Grassland Ecology. A study of grassland structure and function in relation to various biotic and abiotic factors. Cost of field trips (\$5.) and textbooks must be incurred by the student. Prerequisite: 304 and Biology 307 or equivalents.

443-4 Forest Ecology. Distribution of forests and shrublands of the world in relation to climate and soil with emphasis on forest types of North America and of the Midwest. Autecology, physiological ecology, and genetics of major forest species. Two lectures per week with Saturday field trips and exercises. Prerequisite: Biology 307 or equivalent, or consent of instructor.

444-4 Analysis and Classification of Vegetation. Includes concepts and analytical methods pertaining to plant community energetics, nutrient dynamics, succession, vegetation classification and niche theory. Laboratory will include the application of these concepts and methods to field situations. Cost of textbooks and travel fee (\$15.) must be incurred by the student. Prerequisite: Biology 307 or equivalent.

446-4 Tropical Ecology. Two weeks of marine ecology on the atolls and extensive barrier reef off the coast of Belize, British Honduras, and two weeks of terrestrial ecology at several locations inland. Cost varies yearly. Summer. Prerequisite: advanced undergraduate or graduate standing in one of biological sciences, and concurrent enrollment in Zoology 446.

447-2 to 6 Field Studies in Latin America. Two to six weeks of intensive field work to acquaint students with the flora and vegetation in various environments of Latin America and with ecological and taxonomic field techniques. Cost varies with type of study and location. Transportation cost: \$80.00. Prerequisite: advanced standing in one of the biological sciences and consent of instructor.

448-3 to 8 Field Studies in the Western United States. Three to six weeks of intensive field work designed to acquaint students with the flora, vegetation, and environments of the Rocky Mountains and adjacent areas. Both ecological and taxonomic field methods are emphasized. Transportation cost (\$100), travel expenses, and textbooks must be incurred by the student. Prerequisite: 304, Biology 307 or equivalents, and consent of instructor.

449-2 Elements of Taxonomy. Principles of taxonomy including historical sketch, phyletic concepts, classical and experimental methods. One lecture and three laboratory hours per week. Prerequisite: 304 or equivalent, or consent of instructor.

450-2 Plant Geography. World distribution of plants related to environmental, floristic, and historical factors. Prerequisite: interest in biology.

456-4 Introductory Pathology. A study of plant diseases caused by fungi, bacteria, and viruses. Special attention given diseases of southern Illinois plants. Laboratory and field trips.

457-3 Forest Pathology. A study of the nature and control of tree diseases in forests, parks, streets, and nurseries. Fungal diseases are stressed.

460-3 Application of Statistical Techniques in Botanical Research. Techniques of data handling and graphical representation, use of statistical tests, design of experiments and interpretation of results, and preparation of scientific papers. Students will choose individualized projects in the greenhouse, laboratory, field, computing center, or library. Two lectures per week plus conferences on projects. Prerequisite: ten hours in botany or equivalent.

462-4 Science Process and Concepts for Teachers of Grades N-8. (Same as Curriculum, Instruction, and Media 427.) Specifically designed to develop those cognitive processes and concepts needed by elementary teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

484-3 Palynology. (See Geology 484.)

490-3 Photographic Methods in Scientific and Biological Photography. Black and white and color. Specimen photography, macrophotography. Slides for presentation, materials and methods used in scientific publications. Prerequisite: consent of instructor.

491-3 Scientific Illustration. Materials and methods used in illustrating scientific publications including two-dimensional graphs, maps, lettering, and line drawings. Three dimensional techniques will also be covered. Prerequisite: consent of instructor.

492-2 to 6 Honors in Botany. Individual research problems available to qualified juniors and seniors. Prerequisite: consent of department chairman.

503-10 (5, 5) Advanced Angiosperm Taxonomy.

524-2 Advanced Plant Genetics.

525-3 Cytology.

526-4 Cytogenetics.

532-3 Embryogenesis and Organography of Plants.

533-4 Plant Growth and Morphogenesis.

535-2 Energetics of Aquatic Ecosystems.

542-2 Biosystematics.

543-2 Tree Growth.

551-3 Upland Flora.

552-3 Lowland Flora.

570-2 to 3 Graduate Readings in Botany.

580-1 to 6 (1 per semester) Seminar.

581-1 Ecology Seminar.

582-1 Bryology Seminar.

583-1 to 4 (1 per semester) Mycology Seminar.

584-3 Advanced Palynology.

590-1 to 3 Introduction to Research.

591-2 to 9 Research.

599-2 to 9 Thesis.

600-1 to 36 (1 to 12 per semester) Dissertation.

Business Administration (Major [Graduate only], Courses)

The graduate faculty in business administration, consisting of members of the Departments of Accountancy, Administrative Sciences, Finance, and Marketing of the College of Business and Administration, offers graduate work leading to the Master of Business Administration degree. The MBA program has as its objective the development of professional managers and executives to serve the needs of business and government and to prepare interested graduates for doctoral study. The program has been structured with flexibility so as to serve holders of baccalaureate degrees in business administration as well as those who hold degrees in other disciplines. For a more complete description of the program, refer to the Graduate Catalog.

Courses

410-3 Accounting Concepts. Interpretation and critical analysis of reports, statements, and other accounting data from the viewpoint of users of financial information. Restricted to MBA students. Prerequisite: enrollment in MBA program or consent of instructor.

430-3 Business Finance. An introductory course combining both a description of the structure of business financing and an analysis of functional finance from a managerial viewpoint. Prerequisite: enrollment in MBA program or consent of instructor.

440-3 The Management Process. Analysis of management theories and the administrative process. Specific managerial activities are analyzed and discussed. Functional relationships in administered organizations are explored. Prerequisite: enrollment in MBA program or consent of instructor.

450-3 Introduction to Marketing Concepts. An overview of the role of marketing within an economic system and of the major marketing activities and decisions within an organization. Emphasis is on developing an understanding of the marketing process. Prerequisite: enrollment in MBA program or consent of instructor.

451-5 Methods of Quantitative Analysis. (See Mathematics 457.)

500-3 Research Applications in Business and Organizations.

501-3 Operations Research I.

502-3 Business in our Capitalistic Society.

510-3 Managerial Accounting and Control.

511-3 Accounting Theory.

512-3 Auditing Concepts and Methods.

514-3 Controllership.

515-3 Accounting Informations Systems.

519-3 Seminar in Accounting.

521-3 Business Conditions Analysis.

526-3 Managerial Economics.

530-3 Financial Management.

531-3 Advanced Financial Management.

532-3 Financial Institutions and Markets.

533-3 Investment Concepts.

539-3 Seminar in Finance.

540-3 Managerial and Organization Behavior.

541-3 Operations Research II.

543-3 Personal Management.

544-3 Production-Operations Management.

549-3 Seminar in Administration.

550-3 Marketing Management.

551-3 Product Strategy and Management.

552-3 Advanced Marketing Research and Analysis.

555-3 Consumer Behavior.

559-3 Seminar in Marketing.

580-3 International Business Operations.

591-3 Independent Study.

598-3 Business Policies.

599-3 to 6 Thesis.

Business and Administration (Major)

The Bachelor of Science degree program with a major in business and administration is a college-wide degree which is intended for those students with personal and professional goals which cannot be met by one of the existing majors, i.e., accounting, administrative sciences, business economics, finance, or marketing, available in the college and in addition have an interest in subject areas offered in other schools and colleges of the University. The program requires students to combine interests — business with an outside field — into a unique program. For example, a student with international business interests can combine business and administration with foreign languages; a student interested in going into the restaurant business can combine course work in food and nutrition with business and administration. The outside field, or secondary concentration, would have to be consistent with a specific career objective or personal development plan and at least 15 semester hours must be structured to achieve this objective. Individual programs would be subject to the approval of the dean of the College of Business and Administration.

Bachelor of Science Degree, College of Business and Administration

<i>General Studies Requirements</i>	45-46
<i>Professional Business Core (See page 61)</i>	47-48
<i>Requirements for Major in Business and Administration</i>	15-23
Secondary concentration approved by the dean	
<i>Electives</i>	3-13
<i>Total</i>	120

Business Economics (Major)

The business economics major offered through the College of Business and Administration emphasizes the application of economic concepts and the use of critical analysis to the solution of economic and managerial problems.

This undergraduate program is an excellent general preparation for future managerial and staff assignments in a variety of business and public organizations. The program also prepares students for graduate study in economics as well as for the Master of Business Administration (MBA) degree.

Those students who desire professional careers as business and managerial economists are advised to plan to complete one to four years of postgraduate study.

Bachelor of Science Degree, College of Business and Administration

<i>General Studies Requirements</i>	45-46
<i>Professional Business Core (See page 61)</i>	47-48
<i>Requirements for Major in Business Economics</i>	15-18
Administrative Sciences or Economics 479	3
Economics 315, 340, 341	9
Finance 475	(3) ¹
Two courses from the following list, one of which must be in economics	3-6
Economics 310, 330, 329, 436, 443, 465, 467	

Accounting 341, 365, 405	
Administrative Sciences 345, 352, 361	
Finance 323, 325, 480	
Marketing 335, 341, 390, 495	
Electives	8-13
Total	120

¹Hours shown in parentheses are already included in total of hours shown for professional business core.

Business Education

(SEE VOCATIONAL EDUCATION STUDIES)

Chemistry and Biochemistry (Department, Major [Chemistry], Courses)

The Department of Chemistry and Biochemistry offers three degree programs with a major in chemistry. The first is the Bachelor of Science degree in the College of Science. This degree is for those who wish to prepare for graduate study in chemistry or who will become professional chemists. Students completing this degree program will be certified to the American Chemical Society.

The second is the Bachelor of Arts degree in the College of Science. This program is designed primarily for students who wish to complete a major in chemistry, but who plan to eventually go into other professional areas such as medicine, dentistry, or business.

The third program of study leads to the Bachelor of Science degree in the College of Education. This degree program is administered by the College of Education. It is provided for those students who wish to become secondary school chemistry teachers.

Candidates for admission to degree programs are required to have a 2.0 grade point average in chemistry courses. However, students with grade point averages in chemistry courses below 2.25 can expect to have difficulty in advanced courses.

A knowledge of German is recommended for all majors in chemistry, and required for those students working for ACS certification.

Students taking a laboratory course will be required to purchase a notebook or a laboratory exercise book costing from \$1.50 to \$8.50.

Bachelor of Science Degree, College of Science

CERTIFIED BY THE AMERICAN CHEMICAL SOCIETY

General Studies Requirements	45 ¹
Supplementary College of Science Requirements	5
Foreign Language (German)	(4) + 4
Mathematics 110a,b or 111	(4) + 1
Biological Sciences (not general studies)	(6) ¹
Requirements for Major in Chemistry	63
Chemistry 224, and 225 or 222a,b; 226, 344 and 345 plus either 348 and 349 or 346 and 347; 462a,b and 463a,b; 434; 411, 490; either 446 or 450 or 466; and one additional 400 level course for a minimum of 48 hours	(3) + 45
Mathematics 150, 250, 251, 305	14

Physics 205a,b and 255a,b	(4) + 4
German 126a,b	(8) ³
<i>Electives</i>	7
<i>Total</i>	120

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

³Russian or French may be substituted with departmental permission.

Bachelor of Arts Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>Supplementary College of Science Requirements</i>	5
Foreign Language	(4) + 4
Mathematics 110a,b or 111	(4) + 1
Biological Sciences (not general studies)	(6) ¹
<i>Requirements for Major in Chemistry</i>	53-57
Chemistry 224 and 225 or 22a,b; 226; 344 and 345 plus either 348 and 349 or 346 and 347; either 462a,b and 463a,b or 460; 434; plus additional courses to give a minimum of 34 hours	34-38
Mathematics 150, 250, and 251 or 305	11
Physics 205a,b and 255a,b ²	8
<i>Electives</i>	13-17
<i>Total</i>	120

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

²Certain other courses may be substituted with permission of the department.

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45 ¹
<i>Requirements for Major in Chemistry</i>	40-47
Chemistry 224 and 225 or 22a,b; 226; 344 and 345 plus either 348 and 349 or 346 and 347; 462a,b and 463a,b or 460 ..	(4) + 23-30
Mathematics 111 and 110a,b, 150, 250 and 251 or 305 recom- mended (251 is prerequisite to Chemistry 462a,b)	(4) + 12
Physics 203a,b and 253a,b or 204a,b and 254a,b or 205a,b and 255a,b	(3) + 5
Modern foreign language recommended	
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	4-11
<i>Total</i>	120

¹Refer to Professional Education Experiences for General Studies courses which may be required.

Minor

The minor in chemistry requires a minimum of 18 semester hours including 222a,b or 224 and 225. Elective courses must be selected with at least one course in each of two different areas of chemistry. Recommended courses are 226, 340 and 341 or 344 and 345, 460 or 462a,b plus 463a,b.

Courses

115-4 Introductory General Chemistry. A preparation for Chemistry 224 or 222 for

students who have less than a year of high school chemistry. May be audited by students who have had a year of high school chemistry. Two lectures, one three-hour laboratory, and one hour of recitation per week.

140-8 (4, 4) Survey of Chemistry. A terminal, two-semester survey course of general chemistry, organic chemistry and biochemistry designed to meet the needs of majors in home economics and others having comparable requirements. Not applicable to a major or minor in chemistry. Three lectures and one three-hour laboratory each week. Must be taken in a,b sequence.

222-8 (4, 4) Introduction to Chemical Principles. For students majoring in scientific, preprofessional, engineering, or technological programs. Atomic structure, molecular structure and bonding, stoichiometry, properties of gases, liquids and solids, thermodynamics and kinetics, chemical equilibria, pH, electrochemistry. The content of this two semester sequence is equivalent to the one semester offering of 224 plus 225. Two lectures, one laboratory-lecture recitation, and one three-hour laboratory per week. Must be taken in a,b sequence. Prerequisite: one year of high school chemistry or 115.

224-5 Introduction to Chemical Principles. For students majoring in scientific, preprofessional, engineering, or technological programs. Atomic structure, molecular structure and bonding, stoichiometry, properties of gases, liquids and solids, thermodynamics and chemical equilibria, pH, electrochemistry. Four lectures and one recitation per week. Prerequisite: one year of high school chemistry, or 115, and concurrent enrollment in 225. The 225 corequisite may be waived for students in those departments where 225 is listed as a required course for graduation.

225-2 Introduction to Laboratory Techniques. For students majoring in scientific, preprofessional, engineering, or technological programs. Introduction to laboratory apparatus and techniques. One three-hour laboratory and one hour of laboratory-lecture per week. Prerequisite: one year of high school chemistry, or 115, and concurrent enrollment in 224.

226-5 Introduction to Quantitative Chemical Principles. Introduction to quantitative chemical determinations. Two lectures, one laboratory-lecture recitation, and two three-hour laboratories per week. A reasonable knowledge of logarithms and algebra is assumed. Prerequisite: 222b, or 224 plus 225. Elective Pass/Fail.

340-4 Survey of Organic Chemistry. A basic survey of organic chemistry. This course does not satisfy the prerequisites requirement for Chemistry 450 or 451. Four lectures per week. Prerequisite: 222b, or 224 plus 225, and concurrent enrollment in 341.

341-2 Organic Chemistry Laboratory. One three-hour laboratory and one laboratory-lecture per week. Prerequisite: 222b, or 224 plus 225, and concurrent enrollment in 340.

344-4 Organic Chemistry. A fundamental introduction to the chemistry of carbon compounds designed for chemistry, and other science majors; premed and pre dental students, engineers, and others ultimately requiring a year of organic chemistry. Four lectures per week. Prerequisite: 222b, or 224 plus 225, and concurrent enrollment in 345.

345-2 Laboratory Techniques. Physical techniques and reactions of inorganic and organic compounds. One three-hour laboratory and one laboratory-lecture per week. Prerequisite: 222b, or 224 plus 225, and concurrent enrollment in 344.

346-2 Organic Chemistry. A second lecture course in organic chemistry for preprofessionals and those wanting a minor in chemistry. The organic chemistry of compounds of biological interest with emphasis on structure and chemical reactions. Two lectures per week. Prerequisite: 344 and 345 and concurrent enrollment in 347.

347-3 Laboratory Techniques. A laboratory course for preprofessionals and those wanting a minor in chemistry. Synthesis and reactions of compounds of biological interest. One laboratory-lecture and two three-hour laboratories per week. Prerequisite: 344 and 345 and concurrent enrollment in 346.

348-2 Organic Chemistry. The organic chemistry of compounds of biological interest with emphasis on the mechanistic and stereochemical approach to organic chemistry. The second lecture course in organic chemistry for chemistry majors. Two lectures per week. Prerequisite: 344 and 345 and concurrent enrollment in 349.

349-3 Laboratory Techniques. A laboratory course for chemistry majors. Synthesis and structural identification of inorganic and organic compounds, with emphasis on instrumental procedures. One laboratory-lecture and two three-hour laboratories per week. Prerequisite: 344 and 345 and concurrent enrollment in 348.

352-4 Survey of Biological Chemistry. A survey of the chemistry and metabolism of biological compounds. A terminal course in biochemistry. Intended for students who have had a one-semester course in organic chemistry and who desire a one-semester survey of biological chemistry. Three lectures and one three-hour laboratory per week. Prerequisite: 340 and GSA 115.

375-1 to 2 Undergraduate Seminar. For juniors and seniors with a major in chemistry. Prerequisite: consent of the department chairman.

396-4 (2, 2) Chemical Problems. Chemical investigations under the direction and super-

vision of a faculty member. Prerequisite: consent of instructor and four semesters of chemistry laboratory.

411-3 Intermediate Inorganic Chemistry. Fundamentals of inorganic chemistry, covering bonding and structure, coordination compounds, and the chemistry of some familiar and less familiar elements. Three lectures per week. Prerequisite: 460 or 462a or concurrent enrollment in either.

412-2 Inorganic Preparations. Introduction to modern techniques of syntheses and compound characterization. Synthetic techniques include handling of air-sensitive materials, electrosyntheses, high-temperature reactions, and chemistry of non-aqueous solvents plus modern spectroscopic techniques for characterization. Prerequisite: 226, 347, and 349.

416-3 X-Ray Crystallography. (See Geology 416.) Prerequisite: 224 and 225, or 222b, one year of college physics and Mathematics 150.

431-4 Environmental Analytical Chemistry. Practical applications of common instrumental and wet methods to the determinations of chemical substances in common natural and commercial materials. Techniques will include titrimetry; quantitative transfer of liquids and solids; gas, thin-layer and ion-exchange chromatography; atomic absorption; flame photometry; ion selective electrode potentiometry; and spectrophotometry. The course is intended for senior-level and graduate students in disciplines other than chemistry who desire to know the practical aspects of laboratory measurements. The course is not applicable to a major in chemistry. One lecture, one laboratory-lecture, and two three-hour laboratories per week. Prerequisite: 224 and 225, or 222a,b or nine hours of chemistry excluding general studies courses. Elective Pass/Fail.

434-4 Instrumental Analytical Chemistry. Theory and practice of modern instrumental measurements, including emission and absorption spectroscopic, electroanalytical, and chromatographic methods, and an introduction to applied electronics. Two lectures and two three-hour laboratories per week. Prerequisite: one semester of physical chemistry concurrently.

436-3 Analytical Separations and Analyses. A study of the analyses of complex materials, usually inorganic, with emphasis on separations, functional-group chemical analyses, and instrumental applications. Two lectures and one three-hour laboratory per week. Prerequisite: 434 or equivalent, or consent of instructor.

446-3 Qualitative Organic Analysis. A systematic study of the separation and identification of organic compounds. One lecture and six hours of laboratory per week. Prerequisite: 226 and either 348 and 349 or consent of instructor.

450-4 Survey of Biochemistry. Function and metabolism of amino acids, proteins, enzymes, carbohydrates, lipids, and nucleic acids. For preprofessional students, chemistry majors, biology majors, and others desiring a terminal one-semester survey of biochemistry. Three lectures and one laboratory per week. Prerequisite: 346 and 347 or 348 and 349.

451-6 (3, 3) Biochemistry. (a) Chemistry and function of amino acids, proteins, and enzymes; enzyme kinetics; chemistry, function and metabolism of carbohydrates; citric acid cycle; electron transport and oxidative phosphorylation. (b) Chemistry, function and metabolism of lipids; nitrogen metabolism; nucleic acid and protein biosynthesis; metabolic regulation. Three lectures per week. Must be taken in a,b sequence. Prerequisite: one year of organic chemistry.

455-4 Biochemistry Laboratory. Modern biochemical laboratory techniques for isolation, purification, and characterization of constituents of living cells and for investigations of pathways, kinetics, energetics, and regulatory mechanisms related to metabolism and enzymic activity. One lecture and eight hours of laboratory per week. Prerequisite: 451a and 226 or concurrent enrollment; graduate standing in the Department of Chemistry and Biochemistry or consent of the instructor.

460-4 Principles of Physical Chemistry. A one-semester course in physical chemistry designed especially for non-chemistry majors. Not for those who intend to be professional chemists. Three lectures and one three-hour laboratory per week. Prerequisite: 226 and Mathematics 150. Elective Pass/Fail.

462-6 (3, 3) Physical Chemistry. Three lectures per week. (a) Thermodynamics and its applications; chemical kinetics. Prerequisite: 226, Mathematics 251; concurrent enrollment in 463A; Mathematics 305 recommended. (b) Quantum mechanics of atoms and molecules; statistical thermodynamics. Prerequisite: 226, Mathematics 251; concurrent enrollment in 463B; Mathematics 305 and 406 recommended.

463-4 (2, 2) Physical Chemistry Laboratory. The sequence covers analysis of data, computational techniques, theory and practice of phenomenological kinetics and spectroscopy, and applications of thermodynamics. Two three-hour laboratories per week. (a) Prerequisite: 226, Mathematics 251; concurrent enrollment in 462a; Mathematics 305 recommended. (b) Prerequisite: 463a; concurrent enrollment in 462b; Mathematics 305 and 406 recommended. Must be taken in a,b sequence.

- 466-3 Molecular Structure and Spectroscopy.** An introduction to the principles of spectroscopy with emphasis on ir., Raman, n. m. r., and e. s. r. spectroscopy. Three lectures per week. Prerequisite: 462a, b.
- 471-2 Industrial Chemistry.** A survey of modern industrial chemistry and an introduction to chemical research processes. Two lectures per week. Prerequisite: 346 and 347 or 348 and 349.
- 472-6 (3, 3) X-Ray Crystallography.** (See Engineering Mechanics and Materials 402.) Prerequisite: 462b and 463b.
- 489-1 to 3 Special Topics in Chemistry.** Prerequisite: consent of instructor and of chairman.
- 490-2 Chemical Literature.** A description of the various sources of chemical information and the techniques for carrying out literature searches. Two lectures per week. Prerequisite: 224, 225, 346 and 347 or 348 and 349.
- 491-2 History of Chemistry.** The evolution of chemistry from ancient times until 1920. Two lectures per week. Elective Pass/Fail.
- 496-1 to 8 Undergraduate Research (Honors).** Introduction to independent research under the direction of a faculty member culminating in a written report. Not for graduate credit. Prerequisite: a 3.0 grade point average, five semesters of chemistry laboratory including one semester of physical chemistry, consent of instructor and department chairman.
- 500-3 Structural Inorganic and Theoretical Organic Chemistry.**
- 501-3 Kinetics and Thermodynamics.**
- 502-2 Molecular Orbital Theory.**
- 503-4 Applied Spectroscopy and Electronics.**
- 511-6 (3, 3) Advanced Inorganic Chemistry.**
- 519-2 to 9 (2 to 3 per semester) Advanced Topics in Inorganic Chemistry.**
- 531-3 Theory of Chemical Analysis.**
- 532-3 Analytical Chemistry Instrumentation.**
- 534-3 Analytical Molecular Spectroscopy.**
- 539-2 to 9 (2 to 3 per semester) Advanced Topics in Analytical Chemistry.**
- 541-3 Advanced Organic Chemistry**
- 542-3 Advanced Organic Chemistry.**
- 549-2 to 9 (2 to 3 per semester) Advanced Topics in Organic Chemistry.**
- 556-7 (3, 4) Advanced Biochemistry.**
- 559-2 to 9 (2 to 3 per semester) Selected Topics in Organic Chemistry.**
- 561-3 Chemical Thermodynamics.**
- 562-6 (3, 3) Quantum Chemistry Basic Principles.**
- 563-3 Chemical Dynamics.**
- 564-3 Statistical Thermodynamics.**
- 569-2 to 9 (2 to 3 per semester) Advanced Topics in Physical Chemistry.**
- 594-2 to 3 Special Readings in Chemistry.**
- 595-1 Advanced Seminar in Chemistry.**
- 597-1 tgo 15 Professional Training.**
- 598-1 to 50 (1 to 12 per semester) Research.**
- 599-1 to 6 Thesis.**
- 600-1 to 30 (2 to 12 per semester) Dissertation — Doctoral.**

Child and Family (Major, Courses)

The child and family program is a part of the Division of Human Development.

Bachelor of Science Degree, College of Human Resources

CHILD AND FAMILY MAJOR—PRESCHOOL PROGRAMS SPECIALIZATION

These courses offer basic background leading to positions as nursery school director or teacher in private schools, colleges and universities, and day care centers; director or teacher in residential living facilities for exceptional children; child care specialists with social, public health and welfare agencies; home economics extension specialist in child care; and recreational leaders.

General Studies Requirements 45
Including GSB 202, 203, 212, GSD 152

<i>Requirements for Major in Child and Family</i>	36
Child and Family 227, 237, 337, 345, 346, 366, 445, 456, 466, 471-6	33
Food and Nutrition 100	3
<i>Electives</i>	39
Recommended for Preschool Directors and Teachers; Child and Family 340, 408, 481, 490; Botany 390; Curriculum, Instruction, and Media 455, 453; Art 3480; Physical Education 202; Special Education 400; Psychology 301; Music 303.	
Recommended for Child Care Specialists in Social Services: Psychology 305, 459; Social Welfare 375, 383, 391; Family Economics and Management 340, 341, 370; Interior Design 131; Special Education 400; Sociology 426; Child and Family 408, 481, 490.	
Recommended for Residential Life Directors and Supervisors: Health Education 334; Special Education 400, 401, 402, 403; Speech Pathology and Audiology 104, 316; Music 302; Recreation 300, 340; Social Welfare 375, 383; Psychology 301, 451.	
Recommended for Infant Care Specialists: GSA 115, 302, 314; GSB 321; Child and Family 457; Health Education 334; Psychology 301.	
<i>Total</i>	120

Bachelor of Science Degree, College of Human Resources

CHILD AND FAMILY MAJOR—PRESCHOOL/EARLY CHILDHOOD CERTIFICATION SPECIALIZATION

The preschool/early childhood specialization has been specifically designed to prepare future teachers of children under six and will lead to certification by the State of Illinois. This program is jointly offered with the Department of Curriculum, Instruction, and Media in the College of Education. Students wishing the special education endorsement should select the special education option.¹

<i>General Studies Requirements</i>	45
Including GSB 202, 212, GSC 100, GSD 117 or 119, GSE 201	
<i>Requirements for Major in Child and Family</i>	62
Child and Family 227, 237, 240, 245, 337, 345, 466, 417-6	26
Curriculum, Instruction, and Media 209, 213, 317, 318, 418, 419, 435	21
Food and Nutrition 100	3
Music 303	3
Psychology 301	3
Special Education 400	3
Speech Communication 444	3
<i>Electives</i>	13
Special Education Option, Special Education 405 ² , 406, 412	
<i>Total</i>	120

¹Special Education 400 and Speech Communication 444 are required for the special education endorsement.

²Special Education 405 is taken in place of Curriculum, Instruction, and Media 318 for students electing the special education option.

Courses

227-3 Marriage and Family Living. A study of relationships and adjustments in family

living, designed largely to help the individual. To help student better understand the recent changes that have occurred in marriage and the family in the United States.

237-3 Child Development. Principles of development and guidance of children as applied to home situations. Directed observation involving children of varying ages. Understanding the social, emotional, physical, and intellectual development of children.

240-2 Survey of Careers in Preschool Programs. A survey course to acquaint students with the varied career opportunities, approaches to programming, and professional personnel in working with children under six. Field trips will be taken to area program centers. To be taken concurrently with 245 and Elementary Education 218.

245-3 Interpersonal Relationships Seminar. This course is designed with emphasis on realization of one's own potential in wholeness of life pattern and relationships as preparation for work with children, parents, and professional peers. To be taken concurrently with 240 and Elementary Education 218.

337-3 Advanced Child Development. Examines the specific behaviors of both parents and teachers to determine the effects they have on the development of children's desirable and undesirable behavior. Prerequisite: 237.

340-3 Instructional Materials and Activities for the Preschool. Provides opportunities to acquire a working knowledge of the purposes of the various types of preschool centers; the roles of the personnel; basic teaching skills; curriculum areas, including objectives, activities, and evaluation; and basis for parent-teacher communication.

345-3 Child Development Practicum. Observation and participation in the guidance of preschool children in the daily routines, preparation and use of materials and equipment for activities. One hour lecture, three hours laboratory. Interaction and involvement with preschool children. Prerequisite: 237.

346-3 Child Development Practicum. Planning and executing a variety of experiences for preschool children. Three hours seminar, three hours laboratory. Development of skills in preschool management and curriculum development. Prerequisite: 345.

366-3 Family Development. Study of changing patterns in family living throughout the family life cycle. Insight into common current family problems typical of each stage of the family life cycle. Prerequisite: 227 or GSB 341.

408-3 to 9 (3, 3, 3) Workshop. Designed to aid workers in professions related to child and family. Emphasis for the workshop will be stated in the announcement of the course.

410-3 Human Sexuality. Provides detailed in-depth information on such topics as philosophical views of sexual behavior, sex techniques, sex therapy, sexual variations, sexual anatomy and physiology, including the sexual response and changes with age and sexual development in childhood.

445-3 Administration of Pre-School Programs. Planning and organizing programs for preschool or residential facilities including budgeting, staffing, programming, and evaluation. Prerequisite: 345 and 346 or consent of instructor.

456-3 Infant Development. Current theories and knowledge concerning growth and development of infants with related laboratory field experiences. Prerequisite: 237 or Psychology 301 or equivalent.

457-3 Infant Stimulation and Care. Application of theories in infant development in care and stimulation practicum. Development of competencies and skills needed by infant specialists and professionals. Two hours seminar, 4 hours practicum. Prerequisite: 456 or concurrent enrollment.

466-3 Practicum in Parent-Child Study. Designed to increase student's ability to work with parents and parent groups through an awareness of factors in the parent-child relationship and knowledge of current research and methods in parent education. Integration with infant and child development laboratories and related field experience. Prerequisite: 227, 237, or equivalent.

471-2 to 6 Field Experience. Supervised learning experiences in community nursery schools and public agencies. Prerequisite: consent of instructor.

481-1 to 3 Readings. Child development and family living readings under staff supervision. Prerequisite: consent of instructor and chairman.

490-3 Introduction to Marriage and Family Counseling. Problems and techniques of premarital, marital, divorce, family, and family crisis counseling. Counseling individuals singly, in family units, and in groups. Prerequisite: 227 or equivalent and consent of instructor.

500-3 Research Methods.

556-3 The Pre-School Child.

562-3 Child Development through Home and School.

566-3 Interpersonal Relationships within the Family.

571-3 Recent Research.

572-1 to 3 Special Problems.

599-1 to 4 Thesis.

Cinema and Photography (Department, Major, Courses)

Cinema and photography courses provide the undergraduate student with a background in the history, theory, and practice of photographic communication. The program is structured to make available a foundation for professional, fine arts, and educational careers in film and photography; to explore the social implications of still and motion pictures; and to provide opportunity for the study of both cinema and still photography as media for personal expression.

The major in cinema and photography requires from 36 to 48 credit hours, depending on the specialization chosen by the student. Six specializations are available within the major: film production, film theory/history, fine arts photography, professional photography, cinema and photography, or photojournalism. The photojournalism sequence is administered jointly by the Department of Cinema and Photography and the School of Journalism.

To be admitted to the major, a student must have a grade point average of *C* or better. In order to remain in the specialization within the major, all required and/or prerequisite courses must be passed with a grade of *C* or better and, where applicable, with recommendation to continue in the specialization. Photographic portfolios and/or films must be submitted for entry into some courses. Grades below *C* will not be accepted as fulfilling major or specialization requirements. All Mandatory Pass/Fail courses must be completed with a grade of Pass. Cinema and Photography courses are not available to majors on a pass/fail basis unless designated as Mandatory Pass/Fail.

A senior thesis, Cinema and Photography 499 or its equivalent in the film production specialization, is required of all cinema and photography majors. This thesis will consist of the preparation of a photographic portfolio, film, research or critical paper under the supervision of a cinema and photography faculty member. In the film production specialization only, with faculty approval, a student may substitute for the thesis a film produced as part of course work in Cinema and Photography 455 and 456. Normally taken during the last semester in residence, the senior thesis is evaluated on a Mandatory Pass/Fail basis by the departmental faculty. A copy of the thesis is to be provided for the department by the student.

Cinema students may earn credit toward their Southern Illinois University at Carbondale degree by studying at the Inter-University Film Study Center in Paris. Information about this program is available from the department.

Students provide photographic materials for all cinema and photography production courses. In still photography production courses, students supply their own film, photographic paper, certain specialized chemicals, and a fully adjustable 35mm or 120 roll film camera. Some students have found that owning additional items of equipment is advantageous. A cost of \$5 for laboratory materials is charged for each still photography production course. In motion picture production courses students provide their own film, processing, recording materials, and editing supplies. In courses which involve the screening of a number of films, there is a \$10 screening fee.

The University reserves the right to retain examples of the work of each student in each photography class, to make and retain prints of all films made as part of course work other than thesis, and to retain copies of student papers. Such photographs, films, or papers become part of a permanent departmental collection.

The Department of Cinema and Photography is currently operating under a strict enrollment limitation policy. Before enrolling in courses students should

obtain from the department a copy of the statement governing enrollment limitations. There is no required minor.

Bachelor of Science Degree, College of Communications and Fine Arts

CINEMA AND PHOTOGRAPHY MAJOR—FILM PRODUCTION SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Cinema and Photography with a</i>	
<i>Specialization in Film Production</i>	36
Cinema and Photography 355, 356, 360, 368, 452	17
Cinema and Photography 455 and 456, or 499	4-6
Six hours from the following Group I courses:	
460, 461, 464, 468	6
Six hours from the following Group II courses:	
462, 463, 465, 468	6
(468 may count toward Group I or Group II requirements but not both.)	
Additional hours to total a minimum of 36	1-3
36 hours minimum; 48 hours maximum in major.	
<i>Electives</i>	39
<i>Total</i>	120

CINEMA AND PHOTOGRAPHY MAJOR—FILM HISTORY/THEORY SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Cinema and Photography with a</i>	
<i>Specialization in Film History/Theory</i>	36
Cinema and Photography 355, 360, 368, 468, 499	17
Additional hours selected from the following: 460, 461,	
462, 463, 464, 465, 470a	19
36 hours minimum; 48 hours maximum in major.	
<i>Electives</i>	39
<i>Total</i>	120

CINEMA AND PHOTOGRAPHY MAJOR—FINE ARTS PHOTOGRAPHY SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Cinema and Photography with a</i>	
<i>Specialization in Fine Arts Photography</i>	36
Cinema and Photography 310, 311, 320, 322, 499	18
Additional hours selected from the following: 420, 421,	
422, 423, 425, 491, 495, 497	18
36 hours minimum; 48 hours maximum in major.	
<i>Electives</i>	39
<i>Total</i>	120

CINEMA AND PHOTOGRAPHY MAJOR—PROFESSIONAL PHOTOGRAPHY SPECIALIZATION

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Cinema and Photography with a</i>	
<i>Specialization in Professional Photography</i>	36
Cinema and Photography 310, 311, 320, 322, 499	18
Additional hours selected from the following: 403, 405,	

406, 407, 408, 415, 418, 470b, 491, 495, 497	18
36 hours minimum; 48 hours maximum in major.	
<i>Electives</i>	39
<i>Total</i>	120
CINEMA AND PHOTOGRAPHY MAJOR—CINEMA/PHOTOGRAPHY SPECIALIZATION	
<i>General Studies Requirements</i>	45
<i>Requirements for a Major in Cinema and Photography with a Specialization in Cinema/Photography</i>	48
Cinema and Photography 310, 311, 320, 322, 355, 356, 360, 368, 499	32
Additional hours selected from 400-level departmental courses	16
48 hours minimum; 60 hours maximum in major.	
<i>Electives</i>	27
<i>Total</i>	120
CINEMA AND PHOTOGRAPHY MAJOR—PHOTOJOURNALISM SPECIALIZATION	
<i>General Studies Requirements</i>	45
<i>Requirements for a Major in Cinema and Photography with a Specialization in Photojournalism</i>	36
Cinema and Photography 310 or 311, 320, 322, 407, 408, 499, Journalism 300, 310, 311	30
Additional hours in journalism courses	6
36 hours minimum; 48 hours maximum in major.	
<i>Electives</i>	40
<i>Total</i>	120

Courses

257-1 to 30 Work Experience. Used to recognize concurrent structured and unstructured work experience related to the student's educational objective. One to 30 hours of credit in 257 and 258 may be applied toward graduation requirements following departmental evaluation and approval.

258-1 to 30 Work Experience. Used to recognize past work experience related to the student's educational objective. One to 30 hours of credit in 257 and 258 may be applied toward graduation requirements following departmental evaluation and approval. No grade for prior work experience.

259-1 to 36 Technical Subjects. Used to recognize credit in cinema and photography earned in art, technical or trade schools above the high school level. One to 36 hours of credit may be applied toward graduation requirements following departmental evaluation and approval of the credit.

310-3 History of Still Photography. History, aesthetics and appreciation of still photography. Covers the period from 1839 to World War II. Students purchase texts. Elective Pass/Fail.

311-3 Contemporary Photography. Uses, styles and influences of contemporary still photography. Covers the period from World War II to the present. Students purchase texts. Elective Pass/Fail.

313-3 Introduction to Photojournalism. (See Journalism 313.)

315-4 Basic Photography for Art Students. Specifically designed to meet the needs of art students. The class will explore basic photographic technique, deal with camera vision and the way it relates to other media, and attempt to cover the special problems and areas of investigation that the art major will encounter. 315 will not be accepted as a substitute for 320 in the cinema and photography program.

320-4 Basic Photography. Introduction to photographic communication. Basic camera controls, black and white film and print processing, the use of 35 mm and large format cameras. Students purchase texts and provide photographic materials and chemicals. Each student must have available a fully adjustable camera. \$5 cost for additional laboratory materials. Elective Pass/Fail.

322-4 Color Photography. Theory, techniques and aesthetics of color photography. Production of color prints and transparencies. Students purchase texts and provide photographic

materials and chemicals. Each student must have available a fully adjustable camera. \$5 cost for additional laboratory materials. Prerequisite: 320 and consent of department. Elective Pass/Fail.

355-4 Film Production I. Basic techniques for filmmaking. Production of Super 8 motion pictures. Students purchase texts, film stock and processing. Screening fee. Elective Pass/Fail.

356-4 Film Production II. Techniques of 16mm double system sound film production. Production of films by individuals or crews. Students purchase texts, film stock, processing and sound materials. Screening fee. Prerequisite: 355 and consent of department. Elective Pass/Fail.

360-3 Film Analysis. The relationships among structure, style and meaning in all types of films. Screening fee. Students purchase texts. Elective Pass/Fail.

368-3 Introduction to Film Theory. Historical survey of the theories of film. Analysis of theoretical and aesthetic concepts associated with the motion picture. Screening fee. Students purchase texts. Elective Pass/Fail.

403-3 Studio Portraiture. History, theory and practice of formal studio portrait photography. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

405-3 Commercial/Industrial Photography. History, theory and practice of commercial and industrial photography. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

406-3 Advertising/Illustrative Photography. History, theory and practice of photography as used for advertising, illustration and editorial purposes. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 405 and consent of department. Elective Pass/Fail.

407-3 Publications Photography I. History, theory and practice of photographic news reporting with emphasis on production and design of picture stories and essays. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and/or consent of department. Elective Pass/Fail.

408-3 Publications Photography II. History, theory and production of picture essays, including research, lay-out, captions and text. Black and white and color. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 407 and/or consent of department. Elective Pass/Fail.

415-3 Technical and Scientific Photography. History, theory and application of photographic research methods in science, technology and medicine. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

418-3 Documentary Photography. Survey of the history and theory of documentary still photography. Production of documentary photographic essays dealing in depth with an aspect of contemporary life. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and/or consent of department. Elective Pass/Fail.

420-3 Experimental Camera Techniques. Experimental approaches to the creation of photographic images in the camera. Students purchase texts and provide photographic materials and chemicals. \$5 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

421-3 Experimental Darkroom Techniques. Experimental darkroom manipulations of the straight camera image. Students purchase texts and provide photographic materials and chemicals. \$5 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

422-3 Advanced Color Photography. Advanced study and production of color photographs with emphasis on experimental techniques using Dye Transfer, Kwik Proof and other forms of photo-mechanical reproduction. Students purchase texts and provide photographic materials and chemicals. \$5 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

423-3 Reconstruction of Color. A study of the principle of color separation in photography as it relates to the processes of dye transfer, silkscreening, lithography, letter press, etching, and other reproduction processes. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322. Elective Pass/Fail.

425-3 to 9 Studio Workshop. An intensive workshop focusing on current trends in photography as a fine art. Students provide photographic materials and chemicals. \$5 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

452-3 Film Planning and Scripting. Analysis of both scripted and non-scripted films. Script as a basis for production. Practice in preparing film plans, treatments, storyboards and scripts. Students purchase texts. Screening fee. Prerequisite: 355 and/or consent of department. Elective Pass/Fail.

- 454-3 Graphic/Animated Film Production.** Practical course for visual expression related to the graphic film; symbology, composition, kinestasis, animation, typography, color and materials. Students purchase texts and materials. Screening fee. Prerequisite: 355 and 453. Elective Pass/Fail.
- 455-3 Film Production III.** Advanced production by individuals or crews of 16mm sound films from pre-production through shooting. Intensive study of budgeting, production planning, scripting, casting, location and studio shooting techniques, equipment rental, lighting, and double system sound filming. Students provide film stock, processing and sound materials. Screening fee. Prerequisite: 356, 452 and consent of department. Elective Pass/Fail.
- 456-3 Film Production IV.** Continuation of 455 through editing and post production to a first answer print. Intensive study of editing, sound mixing, laboratory procedures and distribution problems. Students provide expendable editing and sound materials and are responsible for laboratory costs. Screening fee. Prerequisite: 455 and consent of department. Elective Pass/Fail.
- 460-3 History of the Silent Narrative Film.** Study of the theatrical film from its beginning to 1930. Screening fee. Students purchase texts. Elective Pass/Fail.
- 461-3 History of the Sound Narrative Film: 1927-1945.** Study of the theatrical sound film from its beginnings to 1945. Screening fee. Students purchase texts. Elective Pass/Fail.
- 462-3 History of the Documentary Film.** Study of the development of the non-fiction film with emphasis on the documentary. Screening fee. Students purchase texts. Elective Pass/Fail.
- 463-3 History of the Experimental Film.** Study of experimentation in cinema from the turn of the century, through the avant garde periods, to contemporary independent films. Screening fee. Students purchase texts. Elective Pass/Fail.
- 464-3 History of the Contemporary Film.** Study of the major movements in theatrical motion pictures from neo-realism to the present. Screening fee. Students purchase texts. Elective Pass/Fail.
- 465-3 History of the Animated Film.** Study of the history, techniques, and aesthetics of the graphic/animated film. Students purchase texts. Screening fee. Elective Pass/Fail.
- 468-3 Advanced Film Theory.** Study of the film theories of Munsterberg, Eisenstein, Kuleshov, Pudovkin, Arnheim, Balaz, Bazin, Kracauer, Wollen, Perkins, Metz, and others. Films which pose particular theoretical problems as well as those which attempt to apply theory are studied. Screening fee. Students purchase texts. Prerequisite: 368. Elective Pass/Fail.
- 470-1 to 9 (1 to 9, 1 to 9) Advanced Topics.** An advanced course concentrating on special topics in cinema or photography. Topics vary and will be announced in advance. (a) Advanced studies in cinema (b) Advanced studies in photography. Not more than 6 semester hours may be counted toward the M.A. or M.S. degree. A screening fee or a \$5 charge for laboratory materials may be required. Prerequisite: consent of department.
- 491-1 to 9 Individual Study in Cinema or Photography.** Research in history, theory or aesthetics. Usually taken 3,3,3. Prerequisite: consent of department. Elective Pass/Fail.
- 492-1 to 3 Practicum.** Practical experience in the presentation of photographic theory and procedures. Not for graduate credit. Prerequisite: consent of department.
- 495-1 to 12 Internship in Cinema or Photography.** Credit for internship with professional film or photographic units. Prerequisite: consent of department.
- 497-1 to 9 Projects in Cinema or Photography.** Individual or crew projects in motion picture production or still photography. Usually taken 3,3,3. Additional laboratory materials costing \$5 required for still photography projects. Prerequisite: consent of department. Elective Pass/Fail.
- 499-4 Senior Thesis.** Preparation of a portfolio, film, research or critical paper under the supervision of a cinema and photography faculty member. Normally taken during last term in residence, the senior thesis is evaluated by the departmental faculty. A senior thesis is required of all majors with the following exception: a film completed in 456 may be submitted with approval of the cinema faculty to satisfy the requirements of a senior thesis. In this case, no course hour credit is given for 499. Senior thesis credit, 499, may not be applied to graduate work. The department will retain one copy of all theses. Additional laboratory materials costing \$5 required for still photography projects. Prerequisite: consent of department. Mandatory Pass/Fail.
- 591-1 to 6 Individual Study in Cinema and Photography.**
- 595-1 to 4 (1, 1, 1, 1) MFA Seminar.**
- 597-1 to 16 MFA Projects.**
- 598-1 to 6 MFA Final Creative Project.**

Clothing and Textiles (Major, Courses)

The clothing and textiles program is a part of the Division of Comprehensive Planning and Design.

Students majoring in clothing and textiles may specialize in either apparel design or retailing. A double specialization is available for students with broader interests and goals, and a special major may be planned with approval of the division director. Requirements for a minor in clothing and textiles are also shown.

Bachelor of Science Degree, College of Human Resources

CLOTHING AND TEXTILES MAJOR—APPAREL DESIGN SPECIALIZATION

This specialization is intended for the student interested in professional preparation in apparel design or allied design positions in either industrial or commercial fashion businesses. The courses available to the student cover textile information, fashion design, and skills required for developing original designs into patterns and completed garments. Courses in clothing and textiles are complemented by ones in art, business, and other areas in order to provide a suitable background for various career opportunities.

<i>General Studies Requirements</i>	45
GSA 106, 107	4
GSB 202, 211	6
GSC 205	3
<i>Requirements for Major in Clothing and Textiles</i>	63
<i>Clothing and Textiles Core:</i> 304, 305, 351, 352	10
<i>Specialization Requirements:</i> Clothing and Textiles 127, 310, 314, 328, 414, 416, 428, 460 or 462; Art 100-8, 200, Art History	39
<i>Professional Electives</i>	14
Choose from the following: any clothing and textiles or art courses; accounting, chemistry, finance, interior design, journalism, mar- keting, psychology, or other approved courses. Specific sugges- tions: Physiology 300; Physical education 303; Theater 211c, 414, 415; Psychology 307; Family Economics and Management 451; GSC 204, 207, 349.	
<i>Electives</i>	12
<i>Total</i>	120

CLOTHING AND TEXTILES MAJOR—RETAILING SPECIALIZATION

This specialization prepares the student for a profession in retail stores, either as buyers or department managers. Other related retailing positions are also available to students who complete the retailing specialization. The courses available to the student cover textile information, fashion merchandising, marketing, and other business-related courses.

<i>General Studies Requirements</i>	45
GSA 106, 107	4
GSB 202, 211	6
GSC 205	3
<i>Requirements for Major in Clothing and Textiles</i>	63
<i>Clothing and Textiles Core:</i> 304, 305, 351, 352	10
<i>Specialization Requirements:</i> Clothing and Textiles 341, 343, 349, 405, 442, plus 5-6 hours of clothing and textiles electives; Mar- keting 304 plus 6 hours of marketing electives; Accounting 210 or 221; Interior Design 300; one of the following: Administrative Sciences 301, 304, Psychology 320 or 323; one of the following: Electronic Data Processing 107, Computer Science 202, GSD 110 or 112	37-38
<i>Professional Electives</i>	15-16

Choose from the following: chemistry, clothing and textiles, finance, interior design, journalism, marketing, psychology, or other approved courses.

<i>Electives</i>	12
<i>Total</i>	120

CLOTHING AND TEXTILES MAJOR—DOUBLE SPECIALIZATION

This double specialization prepares the student for professional positions calling for either apparel design or retailing backgrounds, and the student will also be prepared to assume professional responsibilities calling for a blend of these, for example, a business which both designs apparel and sells it to the ultimate user.

<i>General Studies Requirements</i>	45
GSA 106, 107	4
GSB 202, 211	6
GSC 205	3
<i>Requirements for Major in Clothing and Textiles</i> ¹	79-80
Clothing and Textiles 127, 304, 305, 310, 314, 328, 341, 343, 349, 351, 352, 405, 414, 416, 428, 442, 460 or 462	49
Accounting 210 or 221	3
Administrative Sciences 301 or 304 or Psychology 320 or 323	3
Art 100a, 107, 200, any art history	11
Computer Science 202 or Electronic Data Processing 107 or GSD 110 or 112	2-3
Interior Design 300	2
Marketing 304 and 6 hours of electives in marketing	9
<i>Total</i>	124-125

¹Substitutions must be approved by the division director.

Minor

A minor in clothing and textiles is intended to provide background that will assist students in pursuing their career goals or other interests. At least 16 hours of clothing and textiles courses are required as follows:

104 or 304	2
150 or 351 or 352	203
Other clothing and textiles courses	11-12

Courses

Proficiency examinations are available for Clothing and Textiles 104, 127, and 150. Students will be expected to purchase their own materials in some of the courses offered in clothing and textiles.

104-2 Basic Textiles. Emphasis on recognition of fabrics and weaves, suitability, care, and maintenance, especially household textiles. Credit cannot be earned for 104 after receiving credit for 304A.

127-2 to 3 Clothing Construction. Basic construction laboratory utilizing self-paced instruction. Use of machine and pattern; fabric preparation; garment construction techniques. For beginning student. Elective Pass/Fail.

150-2 Clothing Selection. Study of selection and care of clothing in relation to fabric composition, fashion emphases, art principles, suitability, and cost. Credit cannot be earned for 150 after receiving credit for 351 or 352. Elective Pass/Fail.

227-2 to 3 Creative Pattern Adaptation. Redesigning commercial patterns using flat pattern procedures; fitting; constructing garments using couture techniques. Credit will not be granted after taking 314. Prerequisite: 127 or consent of chairperson. Elective Pass/Fail.

304-2 Textiles. Selection of textiles from consumer standpoint. Characteristics of com-

monly used fibers and fabrics; textile information as a tool in the selection and care of household textiles and clothing. Prerequisite: GSA 106 and 107.

305-2 Textiles Lab. Introduction to textile laboratory equipment. Identification of fibers, fabric performance, care and labeling. Prerequisite: 304 or equivalent or concurrent enrollment.

310-3 Fashion Design-Styling. Original designs for male and female apparel and accessories using various media. Designs based on various sources of inspiration. Prerequisite: Art 100 or Interior Design 131.

314-5 Drafting, Draping, Flat-Pattern Making. Fitting basic tissue or muslin and making sloper; making garment form; making patterns through flat pattern manipulation, draping, and drafting; testing and refining patterns. Prerequisite: 127.

328-3 Tailoring. Basic principles of tailoring applied to coat or suit. Prerequisite: 127 or equivalent.

341-3 (1,1,1) Fashion Retailing Seminar. Comparison of practices drawn from students' work experiences and information from readings or resource persons. Individual and group projects. (a) Inventory shrinkage, (b) Buying and buying procedures, (c) Personnel. Prerequisite: 100 hours approved retailing experience.

343-3 Apparel Accessories. Product knowledge, levels of quality, selling points, and care of plastics, leather goods, furs, jewelry, cosmetics. Elective Pass/Fail.

349-3 Fashion Merchandising. Functions and responsibilities of the fashion merchandiser, considering various retail establishments. Professional course for retailing majors. Prerequisite: 319-1 and Marketing 304.

351-3 Fashion Motivation. Psychological motivation for wearing clothing; societal functions of clothing, cultural differences in dress.

352-3 Family Clothing. Clothing needs of individual family members within the context of developmental stage, life style and societal setting; functional and fashion-motivated needs considered; clothing budgeting.

391-1 to 12 (1 to 6 per semester) Field Experience. Supervised learning experience in approved business or industry. Prerequisite: consent of chairperson.

392-1 to 3 Special Problems. Independent investigation of clothing, textiles or home furnishings in consultation with staff member and resource persons. Prerequisite: consent of chairperson.

405-3 Textile Testing. Exposure to and experience with methods used by retailers and manufacturers of textile items to measure performance and maintain quality. Standards, sampling, and replication requirements and interpretation of results.

414-4 Experimental Custom Apparel Designing. Development of apparel to meet esthetic, structural, and functional needs; problem-solving for exceptional proportions, rehabilitation, activity, performing arts, new technology, materials, environment. Some patterns originated in 414 may be tailored following semester in 428. Prerequisite: 314 or consent of chairperson.

416-3 Mass-Market Apparel Designing. Design of a line to specifications; drafting; toiles; mass-production costs; work flow; use of industrial equipment. Field trips. Prerequisite: 314 or equivalent.

428-3 Custom Tailoring. Individualizing, fitting, and contouring of male or female garment for customer from commercial pattern or from pattern originated in 414 preceding semester. Organization of work and time. Prerequisite: 328, or 414, or consent of chairperson.

442-3 Clothing Economics. Factors of production, distribution, and consumption influencing clothing industry; management of these factors in clothing related businesses; place of clothing industry in national and international markets. Field trip. Prerequisite: GSB 211 or Economics 214.

460-3 Historic Clothing: Western Cultures. Development of clothing in Western Civilization to the present time. Consideration of social, economic and esthetic factors, and technical innovations influencing clothing. Offered alternate years. Prerequisite: junior standing.

462-3 Historic Clothing: Non-Western Cultures. Traditional dress in non-western cultures. Esthetics, symbolism, and uses of costume in the culture; effect of clothing on economy. Cultures studied may vary with each offering. Offered alternate years. Prerequisite: junior standing.

482-1 to 6 (1 to 3 per semester) Workshop. Discussion and analysis of current topics in clothing and textiles. Emphasis stated in announcement. Maximum of three hours per topic. Prerequisite: eight hours in clothing and textiles.

484-1 to 3 Seminar. Topics considered at level of design room, research laboratory, mill, store, and consumer. Offered alternate years. Prerequisite: consent of chairperson.

490-1 to 4 Readings. Supervised study of clothing and textiles literature in area of special interest. Prerequisite: senior standing or consent of chairperson.

555-3 Foundations of Fashion.

573-2 College Teaching of Clothing and Textiles.

580-3 Research Methods.

584-3 Seminar.

592-1 to 6 Special Problems.

597-1 to 3 Pilot Studies.

599-1 to 6 Thesis.

Commercial Graphics—Design (Program, Major, Courses)

The advertising business is a growing field, presenting ever increasing opportunities for men and women who have creative and artistic ability. Trained people are needed to develop story illustrations, advertising layouts, billboard design, point-of-purchase displays, package designs, direct mail pieces, annual report designs, television commercials, title cards, finished lettering, fashion illustrations, airbrush and photo retouching, and many others.

Students in this program develop multiple art skills so they may qualify for initial positions in many different areas of advertising art and design. Each individual has a base upon which to build a career according to personal special interests and talents.

Each graduating design student is required to pass a vocabulary proficiency test and to have compiled a professionally acceptable portfolio of work.

The student should expect to spend approximately \$560.00 for supplies, equipment, and materials over a two year period.

An advisory committee whose members are active in the advertising and graphic design professions serves the program. Current members are: Richard Frybarger, director of visuals, John Deere Co., Moline; Richard Linton, Rechten Associates, Paducah, Kentucky; Craig Leinicke, Norm Obermoeller Advertising Art; Ray Raedel, president, Ray Raedel, Inc.; Ray Welch, art director, Playboy International; and J. R. Zinke, art supervisor, Bell Laboratories, Naperville.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Commercial Graphics-Design

GSB 200-level	3
GSD 101	3
School of Technical Careers 102, 153a,b, 199	8
Commercial Graphics 110, 120, 122, 124, 130, 132, 133, 134, 210, 215, 222, 224, 230	60
Total	74

Courses

103-2 to 8 Lithographic Stripping and Platemaking Laboratory. The student will apply imposition principles for offset in stripping line and halftone negatives, positives, combinations, surprints, double burns, tints and color blocks, step and repeat, burn plates, and produce printing on small presses. Prerequisite: concurrent enrollment in 127 or consent of instructor.

105-2 to 8 Typesetting and Make-up Lab. Students will learn to operate photoelectronic typesetting equipment designed to produce text as well as display type. Make-up will include work on newspaper advertisements and pages, as well as other printed material. The lab work will be performed in conjunction with the publication of a daily newspaper and other printing projects.

110-3 Art Appreciation—From the Cave to the Futuristic. The student will be able to recognize and identify at least thirty paintings and works of art and their creators from the cave man of 1500 B.C. to the contemporary designer and illustrators through the observations of color, composition, and technique. A field trip will be taken to an art museum. Lecture three hours.

120-4 Artistic Anatomy and Color Perception I. Students will demonstrate an ability to understand and use pigmental and light ray color theory and practical application. Students will also demonstrate a knowledge of the bones and muscles of the human anatomy by way of examination and further demonstrate their comprehension and talent by way of artistically and accurately drawing the figure from life. Students will also demonstrate an ability to design, organize, and structure through compositional arrangement. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 122 and 124.

122-4 Technical Drawing for Graphics. Students will demonstrate an ability to understand and utilize the proper point of perspective in illustration and to use the T-square, triangle, and drawing instruments in precisely executing geometric forms, mechanical, and industrial illustration. In addition, students will demonstrate an ability to render objects on scratchboard: the utilization of zipatone patterns and the proper use of the ruling pen to accurately execute ruled business forms. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 120 and 124.

124-4 Graphic Layout and Typography I. Students will demonstrate an ability to use the basic principles of layout, how to do thumbnails, roughs, and clear accurate comprehensives. They will also demonstrate an understanding of basic lettering styles and techniques with chisel point pencil. They will demonstrate an ability to understand the history and practical uses of typography in advertising. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 120 and 122.

126-2 Fundamentals of Drawing and Composition. For non-majors. The student will demonstrate awareness of perspective, light and shade, color theory and application, and composition through basic drawing techniques. Lecture one hour. Laboratory two hours. Elective Pass/Fail.

127-2 Lithographic Stripping and Platemaking Theory. The student will pre-plan the darkroom procedures necessary to produce line and halftone negatives, positives, combinations, double burns, tints, color blocks, step and repeat, and apply nomenclature procedures to maintain a supply of materials for varied shelf life. Prerequisite: concurrent enrollment in 103.

128-2 Fundamentals of Graphic Processes. For non-majors. The student will prepare layouts, execute the mechanical, shoot the negative, strip the film, burn a plate and develop a working knowledge of a duplicator press. Lecture one hour. Laboratory two hours. Elective Pass/Fail.

129-2 Typesetting and Make-up Theory. The student will become familiar with the various typesetting methods including handset, linotype, monotype, as well as the newer photoelectronic typesetting. The study will also include the various techniques of paste-up and preparation of camera-ready copy.

130-4 Artistic Anatomy and Color Perception II. The student will continue to demonstrate knowledge and artistic ability of the human anatomy in the development of advertising, illustration, fashion illustration, and by way of modification the development of the cartoon figure. Lecture two hours. Laboratory three hours. Prerequisite: 120, 122, and concurrent enrollment in 132 and 134.

132-3 Airbrush and Photo Retouching. The student will demonstrate development of skills in the operation and techniques of airbrush rendering used for mechanical and illustrative purposes, and in addition, will retouch black and white photographs suitable for reproduction. Lecture one hour. Laboratory three hours. Prerequisite: 120 and 122 and concurrent enrollment in 130 and 134.

133-1 Copyfitting. The student will demonstrate an ability through discussion and examination to properly solve copy fitting problems, specify how many lines a given manuscript or ad will set, how deep, how many pages in any given format, and to calculate the number of characters per pica and per line. Lecture one hour. Prerequisite: concurrent enrollment in 134.

134-4 Graphic Layout and Typography II. The students will demonstrate their ability through discussion and examination to identify at least 14 different type faces on sight. In addition, they will demonstrate an ability to prepare clean, accurate, professional, quality paste-up, keylines with overlays, and separations. They will demonstrate an ability to work with offset lithography, letterpress, gravure, and silk screen printing processes. Lecture two hours. Laboratory three hours. Prerequisite: 122 and 124, and concurrent enrollment in 130, 132, and 133.

200-1 Artfair Exhibition. Students will receive practical experience in the coordination and development of an art exhibition. They will participate in the development of announcements, mailers, cataloging, scheduling news releases, receiving of entries, security, and returning procedures. They will each develop a systems flow chart for the effective and smooth operation of an exhibition including hands-on operation of exhibit construction and location. Laboratory three hours. Elective Pass/Fail.

201-2 to 8 Lithographic Photography Laboratory. The student will produce line and halftone negatives, tint screens, reverses contact prints, positives, posterization, process color, emphasis techniques and produce selected work on small presses. Prerequisite: concurrent enrollment in 225 or consent of instructor.

202-2 to 8 Offset Presswork Laboratory. The student will produce selected work on the Heidelberg KORA, including multiple imposition, four-color process, step and repeat, duotones, posterization and bindery. Prerequisite: concurrent enrollment in 226 or consent of instructor.

210-8 Advertising Graphics. Students will demonstrate an ability to apply the techniques learned during the first year in the preparation of professional assignments in the areas of marker comps, logo design, cartoons to be used for various types and styles of advertising illustration, and storyboards for television commercials. Further, they will demonstrate an

ability to design professional quality letterheads, envelopes, business cards, and matchbook covers. In addition, students will have their work selected for production on client-oriented publications. They will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 130, 132, and 134.

215-8 Dimensional Design. Students will demonstrate an ability to conceptually order verbal information to form a precise concept, and to express the concept visually in the execution of point-of-purchase displays, packaging, exhibits, and signs. They will also show an ability to do package design. Students will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 210 and 224 and concurrent enrollment in 222.

222-8 Graphic Design and Advertising Illustration. Students will demonstrate an ability to prepare professional quality assignments in the areas of cover and billboard design and illustrations, and the complete development of storyboards for television commercials. They will have the opportunity to have work selected for production on client-oriented publications. Students will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 210 and 224 and concurrent enrollment in 215.

224-8 Publication Graphics. Students will demonstrate an ability to create new and unusual techniques in advertising design, sales promotion booklets, tent cards, and folder design with complete production art. Contemporary techniques in design and production, the use of color keys and stock will be emphasized. They will also have the opportunity to have work selected for production on various client-oriented publications. Students will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 130, 132, 134 and concurrent enrollment in 210.

225-2 Lithographic Photography Theory. The student will inventory, order, maintain supplies and materials essential to darkroom operations to produce the lab work. They will evaluate the emphasis techniques as they are produced on colored and textured paper stocks. Prerequisite: concurrent enrollment in 201.

226-2 Offset Presswork Theory. Students will pre-plan work for the KORA including imposition of various sheet sizes or half sizes, with advantages or disadvantages with relationship to bindery procedures of folding, cutting, scoring, and perforating. Prerequisite: concurrent enrollment in 202.

230-1 Job Orientation Seminar. Students will demonstrate a knowledge through discussion and examination of the operations of large and small agencies and studios including the various responsibilities of the people employed in them by class discussion and examination. Prospecting for employment, working conditions, prospects for advancement, how much an artist should charge for a piece of art, and the legal responsibilities of the artist-designer to the client-agency will be discussed. Students will conclude this course with the presentation of a portfolio demonstrating their ability to do professional quality work (at least 10 plates) and will have acquired the experience of being interviewed for an artist position. Lecture one hour.

240-3 to 12 Special Study. A student with a special interest in a particular advertising art or graphic design area will be selected projects and research to develop additional professional skill. Requires approval of the program supervisor. Lecture three hours. Laboratory 24 hours maximum.

Commercial Graphics—Production (Program)

(ALSO SEE COMMERCIAL GRAPHICS—DESIGN)

Opportunities abound in the printing and publishing field for trained production specialists and persons with both mechanical skills and management ability.

The School of Technical Careers currently is developing innovative approaches to education in this field which allow the student to build a program of relevant courses drawn from diverse areas of offerings meet the challenge of emerging technologies which are revolutionizing the publishing industry. The student who wishes to enter this program will work with an adviser in planning a course of study which meets individual needs and University requirements.

This associate degree program can be completed in two academic years at

Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Communications and Fine Arts (College, Courses)

Courses

397-1 to 6 Special Interdisciplinary Study. Designed to offer and test new and experimental courses and series of courses within the College of Communications and Fine Arts. Prerequisite: consent of instructor.

497-1 to 6 Special Interdisciplinary Study. Designed to offer and test new and experimental courses and series of courses within the College of Communications and Fine Arts. Prerequisite: consent of instructor.

Community Development (Major [Graduate only], Minor, Courses)

The community development program is a part of the Division of Social and Community Services.

In recognition of major national legislation in community development and the growing need for informed leaders and trained practitioners at the community level in many fields, this minor has been developed.

Requirements: 15 semester hours, including 401 and at least 6 additional hours selected from community development courses and 6 more hours from community development courses or from courses closely related to the community development field offered in other departments. A list of approved courses is available from the community development office. If students receive credit in their major for any of these courses, it may not also be counted toward their community development minor.

Courses

200-3 The Nature of Community. Human communities have existed since pre-history, but the nature of what a community is, should, or could be remains a subject of wide debate. The purpose of this course is to clarify some of the issues of this debate by examining some of the ways that communities have changed since prehistoric times as well as the different philosophies and theories of community, both past and present, and also by identifying those aspects and elements of community life that appear common to all human communities. Elective Pass/Fail.

201-3 Communes and Communities: Experiments Past and Present. Throughout recorded history various individuals have envisioned, and various groups have deliberately sought to establish, communities that differed greatly from the conventional communities of the time. Some, like the medieval monastic orders or the "Bruderhoffs" of today, have been remarkably durable; but many have failed. In this course, the history and philosophy of experimental and intentional communities from monasteries to communes will be reviewed with the object of better understanding the social conditions that give birth to such communities and those conditions that appear to either enable or inhibit their survival. Elective Pass/Fail.

202-3 Communities of the Future. The focus of this course will be on problems of and solutions to the creation and maintenance of human settlements and the interdependence of social, cultural, and economic elements. Problems of crime, disease, health, moral issues, government control, population, migration, and others will be explored against a background of innovative, technical and utopian social ideas about communities of the future. Elective Pass/Fail.

302-3 Community Self-Study. The origins and development of the self-study approach to community development in the United States will be traced and the major approaches and programs contained in the community self-study movement will be reviewed. Special attention will be given to the implications the self-study method holds for definitions of leadership and power, status and role, planning and development. Late historical developments in the utilization of the self-study approach for social programs such as the "war on poverty" and the resurgence of "grass roots" self-study in urban areas will be examined as well as rural small town and area usage of the method. Elective Pass/Fail.

401-3 Introduction to Community Development. This survey course is designed to provide a general understanding of community development. It includes an analysis of the history, values and techniques of various approaches to community development and explores some of the specific social issues and problems which confront community development practitioners. Elective Pass/Fail.

402-3 Comparative Community Development. Surveys the historic, economic, organizational and other aspects of international community development programs under the auspices of world and regional agencies or of multi-national, national or local sponsorship, focusing primarily upon specific case studies. Elective Pass/Fail.

403-3 Citizen Roles in Human Services. Examines citizen and consumer participation in human services delivery in four major areas: government-sponsored agencies, advocacy organizations, para-professional services and professionally staffed volunteer agencies. Concepts of citizen participation, history and dynamics of consumer movements, case studies. Elective Pass/Fail.

404-3 Role Theory and Analysis in Community Development. The focus of this course is on role theory and methods of analysis. The student will gain considerable exposure to the techniques of role analysis as an evaluation tool in community development training and program development. Elective Pass/Fail.

405-3 Social Planning. Introduction to the methods, practices, functions, and ethics of social planning in the United States, including a critical perspective. Criminal justice, social planning in the United States, including a critical perspective. Criminal justice, health, manpower, welfare, and other sectors of social planning will be discussed to illustrate the principles of social planning.

491-1 to 6 Independent Study in Community Development. Supervised individual study and projects in fitting with the needs of each student. Prerequisite: consent of instructor. Elective Pass/Fail.

497-1 to 12 (1 to 3 per topic) Seminar in Community Development. The identification and analysis of special problems in community development. (a) Project funding, evaluating, and reporting; (b) Central and peripheral systems in community development; (c) Community development cooperatives and credit unions; (d) Research problems and methods; (e) Special problems. Credit limited to not more than three per topic and not more than 12 total. Elective Pass/Fail.

500-3 Research Seminar in Community Development.

501-4 Small Group Process in Community Development.

502-3 Community and Change.

503-3 Problems of and Approaches to Community Development.

589-2 Professional Seminar in Community Development.

593-1 to 6 Individual Research in Community Development.

595-1 to 8 Internship.

599-1 to 6 Thesis Research.

Comparative Literature (Minor)

A comparative literature minor is available within the College of Liberal Arts. The program is directed by the comparative literature adviser in either the Department of English or the Department of Foreign Languages and Literatures. The minor consists of 18 hours of course work at or above the 300-level in literatures other than those in which the student is majoring.

Computer Science (Department, Major, Courses)

The Department of Computer Science offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate major which prepares students for a variety of professional and technical careers in business, industry, and government or for graduate work leading to advanced degrees. In addition, the department offers an undergraduate minor and service courses for students from other fields who will use computer science as a tool in their own areas. Students interested in computer science will be advised with respect to computer science courses by the department so they may profitably pursue their academic and professional interests.

Requirements for a major in computer science are specified in two alternative

forms. The program under option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

Bachelor of Arts Degree, College of Liberal Arts

COMPUTER SCIENCE MAJOR—OPTION A

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See Page 70)	(4) + 4
<i>Requirements for Major in Computer Science</i>	57
Computer Science 202, 302, 304, 306, 342, 411, each with a grade of C or better	19
Computer Science 401 or 414 or 445	3
Computer Science 361 or 464a	3
Two of the following: Computer Science 430, 435, 438, 449, 451, 470, 471, 472, 485. (471 and 472 may not both be used)	6
Mathematics 150, 250, 221	11
An approved course in probability or statistics	3
Technical electives which have the approval of the department	9
English 290 or equivalent	3
<i>Electives</i>	14
<i>Total</i>	120

COMPUTER SCIENCE MAJOR—OPTION B

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70)	(4) + 4
<i>Requirements for Major in Computer Science</i>	62-65
Computer Science 202, 302, 304, 306, 312, 411 each with a grade of C or better	19
Computer Science 430, 435	6
Mathematics 139 and 140 or 116 and 117 or 150 and 221	7-10
An approved course in probability or statistics	3
Technical electives which have the approval of the department	9
English 290 or equivalent	3
Accounting 221, 222	6
Administrative Sciences 304, 318, 352	9
<i>Electives</i>	6-9
<i>Total</i>	120

Minor

A minor consists of Computer Science 202, 302, 304, 306, and three additional hours at the 400 level.

Courses

- 102-3 Computers in Society.** An introduction to computers, their uses, present and future roles of computer technology in society, and related social issues. Includes elementary programming using on-line terminals.
- 202-3 Introduction to Computer Programming.** An introduction to computers and programming including a discussion of algorithms, flowcharts, data representation, structure and debugging of programs, computers and languages. Primary emphasis will be given to the solution of problems using PL/1.
- 212-3 Introduction to Business Computing.** An introduction to concepts and features of computing systems with reference to business information processing. Includes a basic treatment of programming using PL/1. This course will serve as an equivalent of 202 for prerequisite purposes.

222-3 Introduction to FORTRAN. A basic treatment of FORTRAN with applications to numeric and nonnumeric processing.

302-4 Assembly Language Programming. Basic computer organization. An extensive treatment of a specific assembly language, including macros. Prerequisite: 202.

304-3 Information Structures. Study of structures used to organize information in computer memory, with a discussion of manipulation algorithms and applications. Topics include vectors and arrays, linked lists, trees, garbage collection, dynamic storage allocation, sorting and searching, and hashing. Prerequisite: 302.

306-3 Fundamentals of Computing Systems. An introduction to the organization of a computing system in terms of hardware, firmware, software. Computer architecture and hardware subsystems. Design of an assembler and other system software. Prerequisite: 304 or concurrent enrollment.

312-3 COBOL and Business Data Processing. COBOL and its use in business data processing. Prerequisite: 202.

314f-2 Programming Techniques in FORTRAN. A thorough treatment of FORTRAN with extensive programming practice. Prerequisite: 202.

314l-2 Programming Techniques in List and String Processing Applications. Thorough analysis of the techniques used to support string and list processing. Includes extensive programming practice. Prerequisite: 202.

314p-2 Programming Techniques in PL/1. An advanced treatment of PL/1 with applications and extensive programming practice. Prerequisite: 202.

318-2 Topics in Assembly Language Programming. Selected advanced topics in assembly language programming. Prerequisite: 306.

322-2 Advanced FORTRAN. An advanced treatment of FORTRAN IV with extensive programming practice. Prerequisite: 222.

342-3 Introduction to Discrete Structures. (Same as Mathematics 301.) Sets, relations, and functions. Elements of graph theory with emphasis on algorithms and applications to computing problems. Boolean algebras with applications to computer logic and logical design. Prerequisite: 202 and Mathematics 111 or consent of either department.

361-3 Numerical Calculus. (Same as Math 361.) Algorithms for the solution of numerical problems encountered in scientific research work with special emphasis on the use of digital computers. Includes an elementary discussion of error, polynomial interpolation, quadrature, solution of nonlinear equations and linear systems, solution of differential equations. Prerequisite: 202 and Mathematics 150.

370-2 Basic Simulation. A study of the basic techniques used in simulating discrete systems on a digital computer. Emphasizes the writing of computer programs to model probabilistic systems with special emphasis on a general purpose simulation language. Credit will not be given for both 370 and 470. Prerequisite: 202.

401-3 Computer Organization. Computer main frame architecture; control unit, arithmetic/logic unit, memory, other features. Input/output devices, mass storage devices, channels, and communications equipment. Computer system configurations design and comparison. Prerequisite: 306 and 342.

411-3 Programming Languages. Study of the significant features of existing programming languages with particular emphasis on the underlying concepts abstracted from these languages. Includes formal specification of syntax and semantics, representation and evaluation of simple statements, grouping of statements, scopes and storage allocation, procedures. Prerequisite: 304 or concurrent enrollment.

414-3 Introduction to Operating Systems. Operating systems: batch, multiprogramming, multiprocessing, and time-sharing systems. Specific treatment of one operating system with respect to scheduling, program initiation, memory allocation, CPU allocation, and input/output control. Prerequisite: 306.

430-3 File Organization. Organization of records and blocks. Design of files, file system, and access methods. File maintenance, external sorting, and searching. Techniques for creating and using hashed files. Introduction to the concepts of data base systems. Prerequisite: 306.

435-3 Information Systems Analysis. An exercise in the analysis, design, implementation, testing, and maintenance of a large modular application system. Team production of a system is the focal point for the course. Topics include the system life cycle, modular design, human interfaces, external system specification, program design languages, and improved programming techniques. Prerequisite: 306.

438-3 Introduction to Telecommunications. Time dependent computational processes. Hardware and software considerations. Dialogue design. System design and implementation. Prerequisite: 306.

445-3 Boolean Algebra and Logical Design. (Same as Mathematics 445.) Boolean algebra with applications to computer logic and circuit design. Simplification algorithms. Sequential circuits and sequential machines. Introduction to error-correcting codes. Prerequisite: 342 or Mathematics 319.

449-3 Combinatorics and Graph Theory. (Same as Mathematics 449.) An introduction

to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion, Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 342.

451-3 Introduction to the Theory of Computing. (Same as Mathematics 451.) The fundamental concepts of the theory of computation including finite state acceptors, formal grammars, turing machines, and recursive functions. The relationship between grammars and machines with emphasis on regular expressions and context-free languages. Prerequisite: 445.

464-6 (3, 3) Numerical Analysis. (Same as Mathematics 475.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 202, Mathematics 250, and Mathematics 221.

470-3 Computer Simulation Techniques. Applications and rationale. Design and analysis of discrete simulation models. Generation of random sequences and stochastic variates. Simulation languages. Prerequisite: 202 and either Mathematics 280 or 480 or 483 or consent of instructor.

471-3 Introduction to Optimization Techniques. (Same as Mathematics 471.) Nature of optimization problems. General and special purpose methods of optimization, such as linear programming, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 202, Mathematics 221, and Mathematics 250.

472-3 Linear Programming. (Same as Mathematics 472.) Nature and purpose of the model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimality analysis. Prerequisite: 202 and either Mathematics 139 or 221.

485-3 Computer Graphics. Study of the devices and techniques for the use of computers in generating graphical displays. Includes display devices, display processing, transformation systems, interactive graphics, 3-dimensional graphics, graphics system design and configuration, low and high level graphics languages, and applications. Prerequisite: 306 and Mathematics 111 or equivalent.

490-1 to 6 (1 to 3 per semester) Readings. Supervised readings in selected subjects. Prerequisite: consent of instructor and department.

491-1 to 4 Special Topics. Selected advanced topics from the various fields of computer science. Prerequisite: consent of instructor.

492-1 to 6 (1 to 3 per semester) Special Problems. Individual projects involving independent work. Prerequisite: consent of department.

493-1 to 4 Seminar. Supervised study. Preparation and presentation of reports. Prerequisite: consent of instructor.

501-3 Advanced Computer Organization.

514-3 Systems Programming.

516-3 Compiler Construction.

531-3 Text Processing and Data Base Systems.

536-3 Artificial Intelligence and Heuristic Programming.

553-3 Formal Languages and Automata.

555-3 Theory of Computability.

564-3 to 9 (3, 3, 3) Advanced Numerical Analysis.

590-1 to 9 Readings.

591-1 to 9 (1 to 3 per topic) Special Topics.

592-1 to 6 (1 to 3 per semester) Special Problems.

593-1 to 4 Seminar.

599-1 to 5 Thesis.

Construction Technology—Building (Program, Major)

(ALSO SEE CONSTRUCTION TECHNOLOGY—CIVIL)

The construction technology—building curriculum is designed to meet the needs of the construction industry. The technician must be able to talk the language of the industry and interpret instructions, and must also be capable of working in the area between the architect and the craftsmen who are expected to carry out the mandates of the design. The program provides sufficient theory and laboratory work so that the graduate can perform in areas of design, drafting, construction methods, estimating, and surveying.

The curriculum is designed to accept both new freshmen and transfer students. Students entering with industrial experience or courses taken in the military will be given credit by proficiency or transcript evaluation.

The student should expect to spend about \$60.00 for instruments and supplies.

The program is served by an advisory committee whose members have extensive experience in the field. Current members are: Mike Grant, Unibuilt Structures, Charleston; Fred H. Persson, Steffes Construction Co., Carterville; Paul Phillips, Phillips Lathing, Inc., Carbondale; D. Leo Robinson, J & L Robinson Development and Construction Co., Carbondale; and Arthur Vincent, Egyptian District Council Carpenter's Union, Murphysboro.

Graduates of this program may find employment as construction engineering aids, assistants to a contractor supervisor, building materials salesmen, inspectors, and estimators.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experiences.

Associate in Applied Sciences Degree, School of Technical Careers

Requirements for Major in Construction Technology—Building

GSD 101	3
School of Technical Careers 102, 105a,b, 107a,b	10
Accounting 110	3
Construction Technology 102a, 103a,b, 104, 110, 111, 125a,b 208, 210, 211	53
Electives (in Humanities or Social Science)	3
<hr/> Total	<hr/> 72

Construction Technology—Civil (Program, Major, Courses)

The construction technology—civil curriculum is designed to produce a technician who can, under supervision, perform many of the specialized tasks required to coordinate and guide a construction project from the planning stage to a satisfactory completion. Technical training is provided in surveying, materials of construction, construction methods, equipment, planning, estimating, design, and drafting.

Credit may be obtained for relevant courses or work experience by transcript evaluation or proficiency examination.

The student should expect to spend approximately \$40.00 for instruments and supplies.

The following people serve on an advisory committee which assists the program: M. P. Berteaux, Department of Transportation, Springfield; Carroll Fry, city manager, Carbondale; Charles Luckett, Superior Structures Corp., Marion; Henry Mitchell, Shawnee Construction, Marion; B. J. Schwegman, Clark, Dietz, and Associates, consulting engineers, Carbondale; and Don Shelton, State Highway Department, Carbondale.

Career opportunities exist primarily with heavy construction oriented organizations: governmental units engaged in providing public works such as highways, airports, and conservation projects; contractors; consulting engineers; industrial organizations; material suppliers and testing laboratories.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experiences.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Construction Technology—Civil

GSD 101	3
School of Technical Careers 102, 105a,b, 107a,b	10
Construction Technology 101a,b, 102a,b, 103a,b, 125a,b, 201, 203, 207, 208, 213a,b	53
Elective (in Humanities or Social Science)	3
<hr/>	
Total	69

Courses

- 101-14 (7, 7) Surveying.** Students will be able to make observations, prepare field notes, and make field checks using equipment usually encountered in a plane surveying. They will be able to reduce field notes and present the results in a form which is understandable to others using the desk calculator, planimeter, slide rule, and drawing instruments as required. They will know techniques employed in construction layout. (a) Horizontal distance, leveling, the transit, traverses, elementary triangulation, surveys for maps, stadia and photogrammetry, construction surveys. Lecture three hours, laboratory six hours. (b) Surveying computations, areas, volumes; error theory, earthwork, horizontal curves, vertical curves, slope staking, ties, construction tolerances, elements of land surveying, state plane coordinate systems. Must be taken in a,b sequence or by consent of instructor. Lecture three hours, laboratory six hours.
- 102-8 (4, 4) Drafting.** Students will acquire the basic skills necessary for more advanced drafting work. They will then specialize in drafting techniques used in the preparation of working drawings for steel and concrete structures. (a) Lettering, line work, geometrical constructions, drawing layout, dimensioning, orthographic projection, sections, auxiliary views, surface intersections, surface development, isometric drawing, oblique drawing, elements of structural drafting. Lecture two hours, laboratory four hours. (b) Preparation of working drawings for steel and concrete structures from given design data. Lecture two hours, laboratory four hours.
- 103-8 (4, 4) Construction Materials.** Students will obtain knowledge of production methods, physical properties, uses, installation methods, advantages and disadvantages, together with relative costs of materials frequently used in construction. Using given test procedures, they will be able to perform tests on concrete materials and soils which are required for on-site control. (a) Concrete materials including laboratory, wood, ferrous metals, bituminous materials, soil cement, nonferrous metals, stone, masonry, concrete proportioning, introduction to reinforced concrete. Lecture two hours, laboratory three hours. (b) Soils including laboratory, elementary soil mechanics, foundations, other building materials including plastic, glass, insulation, building boards, protective coatings. Lecture two hours, laboratory three hours.
- 104-4 Building Construction Surveying.** Students will be able to give line and grade for elementary construction layout using the tape, transit, and level or equivalent equipment. They will also be able to make surveying observations required for the preparation of a site plan. Lecture two hours, laboratory three hours.
- 110-7 Basic Construction I.** Students will acquire the skills and knowledge necessary to enable them to safely operate basic woodworking machines, identify the common commercial wood species, and apply basic methods of testing wood and other wood-based materials. Lecture two hours, laboratory nine hours.
- 111-7 Basic Construction II.** Students will acquire the skills and knowledge necessary to enable them to demonstrate their abilities in light frame construction, electrical wiring methods, and small tool maintenance and repair. Lecture two hours, laboratory nine hours. Prerequisite: 110 or consent of instructor.
- 125-6 (3, 3) Statics and Strength of Materials.** The student will learn fundamental concepts which are necessary in order to understand terms continually used in civil technology. (a) Force systems, strength of materials, friction, connections, thin wall, pressure vessels. Lecture three hours. (b) Beam design, torsion, shafts, couplings, keys, combined stresses, columns, statically indeterminate members. Lecture three hours.
- 201-3 Advanced Surveying.** The student will develop the ability to organize a small field party, make field observations using techniques consistent with given survey requirements, and present results in a form useful to others. Comprehensive problems will be assigned which include traverses, triangulation, topography and field astronomy. Laboratory and homework in addition to regularly scheduled class time will be required. Lecture two hours, laboratory two hours. Prerequisite: 101 or consent of instructor.

203-3 Hydraulics and Drainage. Students will have sufficient technical background to perform inspection functions on projects where static and moving liquids are being controlled. Under supervision, they will be able to make small area surface run-off and drainage structure computations. Subjects studied are: static pressures, flow in open channels and pressure conduits, surface run-off, drainage structures. Lecture three hours.

207-3 Construction Planning, Methods, and Equipment. Students will have basic knowledge of construction management functions, primarily from the point of view of the contractor. They will be able to assist in the preparation of work schedules, requests for progress payments and the evaluation of alternate methods of construction. Systematic problem-solving procedures based on factual data are emphasized. Lecture three hours. Elective Pass/Fail.

208-3 Construction Cost Estimating. The student will be able to assist in the preparation of construction cost estimates. Actual working drawings and specifications are used extensively. Emphasis is on quantity take-off and the development of unit costs from given or derived data. Lecture three hours.

210-7 Advanced Construction I. Students will acquire the skills and knowledge to enable them to perform advanced operations in light frame, prefab, and modular construction. Lecture three hours, laboratory six hours. Prerequisite: 111 or consent of instructor.

211-7 Advanced Construction II. Students will acquire the skills and knowledge to enable them to demonstrate their competency in the preservation and finishing of building materials, plumbing and pipefitting as it relates to domestic and other buildings, concrete forming methods; and block and bricklaying techniques. Lecture three hours, laboratory six hours. Prerequisite: 210 or consent of instructor.

213-5 (2, 3) Structural Design. Sufficient design background is provided for supervision of field construction techniques to insure that the intentions of the drawings and specifications are fulfilled. (a) Pertinent provisions in the American Institute of Steel Construction-Manual of Steel Construction are emphasized. Lecture two hours. (b) Similar to (a), but the American Concrete Institute-Building Code Requirements for Reinforced Concrete is used. Lecture three hours.

Consumer Studies (Minor)

(SEE FAMILY ECONOMICS AND MANAGEMENT)

Correctional Services (Program, Major)

(ALSO SEE LAW ENFORCEMENT)

A growing demand for trained correctional workers is being created by increasing emphasis on rehabilitation of criminal offenders. These people are needed both in institutions and in community-based corrections.

This correctional services program has the two-fold purpose of providing a broad-based social science type curriculum to both the person entering the field and to presently employed personnel who wish to upgrade skills for advancement opportunities.

Students will learn the nature and effects of crime on both the perpetrator and the victim, methods used to combat crime in modern society, and various approaches to rehabilitation of the offender. They will spend one term in supervised internship working in a correctional institution or with a correctional agency.

Persons already employed in the correctional field may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their work schedules.

Professionals in the field serve on an advisory committee which assists in the program. Current members are: Warden Thomas Israel, Illinois State Penitentiary at Menard; Warden Vernon Housewright, Vienna Correctional Center; Dr. Champ Brahe, director, Southern Illinois Work Release Center, Carbondale; Associate Circuit Judge William Lewis, Anna; and Joseph Coughlin, Center for the Study of Crime, Delinquency and Corrections, Southern Illinois University at Carbondale.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Correctional Services

GSB 202, 203, 212	11
GSD 101, 118, 153	8
Political Science 213	3
Sociology 372	4
Correctional Services/Law Enforcement 103, 104, 105, 106, 108, 115, 209, 210, 215, 217, 220	39
Electives	3
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Total	68

Correctional Services/Law Enforcement (Courses)

Courses

103-3 Introduction to Criminal Justice. Enables the student to understand the workings of the criminal justice system and is the foundation course for the law enforcement program. Upon completion of this course, the student will have an understanding of the processes from arrest through imprisonment enabling assimilation of progressive courses such as criminal law and criminal behaviorial theories. Lecture three hours.

104-3 Treatment Methods in Criminal Justice. The general goal of this course is to introduce to the student several treatment methods utilized in the criminal justice system. The student will briefly examine several treatment modalities and will discuss transactional analysis in detail. Other course items will include participation in a treatment group and a trip to a maximum security prison. Also includes involvement in many group exercises that should help the student gain a working knowledge of treatment methods. Lecture three hours.

105-3 Criminal Behavior. Will enable the student to understand the psychological and sociological forces that make up criminal behavior. Upon completion of this course the student will have the knowledge to complete studies of the behavioral field in other disciplines of the university such as criminology. Lecture three hours.

106-3 Treatment Practicum. Will enable the successful student to apply the techniques learned in 104 in actual therapeutic settings and groups in area social service agencies and correctional institutions. Upon completion of this course, the successful student will be prepared to assist in leadership of therapeutic or treatment modalities and will have the ability to use these skills in human service agencies. Lecture three hours. Prerequisite: 104.

108-3 Supervision in Criminal Justice. The criminal justice supervisor's role in discipline, intradepartmental relations, problem-handling, and personnel policies. Problems relating to supervisory relationships, wages, grievances, morale, and safety. Lecture three hours.

115-3 Interpersonal Relations in Criminal Justice. Enables the student to develop a better understanding of people, their motivations, and their behavior patterns. A specific emphasis of this course is on individual and organizational intrapersonal and interpersonal relations. Upon successful completion of this course, each student should have developed the skills necessary for positive interaction with individuals in the free society and within a setting of incarceration. Lecture three hours.

205-3 Criminal Investigation. Enables the student to examine the major theories and techniques of criminal investigation. Upon successful completion of the course, the student should have an understanding of the techniques of criminal investigation and how these techniques can be applied to various types of investigations. The student should learn the value of adequate preservation, collection, and handling of physical evidence. Lecture three hours.

209-3 Criminal Law I. Enables the student to understand the due process functions of the criminal law. Upon completion of this course the student will be able to use a law library and will have an understanding of the laws of arrest, search and seizure, and evidence including recent Supreme Court decisions affecting his daily work assignments. This course is also a foundation for Criminal Law II where the substantive law is covered. Lecture three hours.

210-3 Criminal Law II. Will enable the student to apply the law of due process (constitutional law) to the study of substantive law including Illinois state penal code and the Illinois Corrections Code. Upon completion of this course the student will have a working knowledge of how both the penal and corrections codes of the state enables society to successfully prosecute violators of the law. The student will also be able to brief cases pertaining to criminal and correctional law. Lecture three hours. Prerequisite: 209.

215-9 Internship in Criminal Justice Practice. The pre-service student will be exposed to the operations of a criminal justice agency through an eight-week internship in that agency under supervision. Upon completion of the internship the student will have been exposed to all aspects of the agency and reinforce the student's attitudes toward that particular area of criminal justice. (Internship—40 hours per week. Eight weeks.)

217-3 Correctional Administration. Will enable the student to examine the administrator's role in corrections including budgeting, personnel, and police guidelines. Upon completion of this course the student will have the fundamental skills necessary for middle management personnel. Lecture three hours. Prerequisite: 103.

220-3 Probation, Parole, and Community Based Corrections. Will enable the student to understand the concept of alternatives to incarceration. The benefits and workings of probation and parole will be examined and the student will be exposed to the casework method utilized in these areas. The student will learn of alternatives to incarceration that are community based and of the need for community involvement and support for these efforts. Lecture three hours. Prerequisite: 103.

221-3 Police Administration. Principles of organization and modern management as applied to law enforcement agencies. The course will provide the student with an introduction to organizational theory, organizational behavior and administration. Special attention will be paid to the objectives of police operation and some of the factors lying ahead in the field of police administration. Lecture three hours. Prerequisite: 103 and 107 or consent of instructor.

Curriculum, Instruction, and Media (Department, Majors, Minor [Educational Media], Courses)

Students may enter the Department of Curriculum, Instruction, and Media (1) directly from within the College of Education, (2) from the General Studies Program, (3) from other academic units, or (4) from other institutions of higher education. The department offers a major in early childhood education with either a preschool or a kindergarten through grade 3 specialization, a major in elementary education, a minor in educational media, and offers courses for students pursuing the standard high school certification program.

Educational Media Minor

Persons trained primarily as teachers may qualify for part-time professional service as a school librarian by completing the following courses: 438, 439, 440, 442, 435 or 445, and Education 304a; or as an audiovisual coordinator by completing the following courses: 442, 450, 453, 455, 458, and Education 304a. Other courses in the utilization and administration of teaching materials are designed to train both audiovisual coordinators and librarians to become fully qualified educational media specialists who can administer all teaching materials.

Bachelor of Science Degree, College of Education

The Department of Curriculum, Instruction, and Media prepares students to qualify for the following Illinois teaching certificates: Early Childhood Certificate (for teaching ages 0-6), Standard Elementary Certificate (for teaching in grades K-9), or Standard High School Certificate (for teaching in grades 6-12).

Early Childhood Education Major

EARLY CHILDHOOD EDUCATION MAJOR—PRESCHOOL SPECIALIZATION

Students interested in teaching children 0-6 years of age in private or state-approved settings may elect to participate in the early childhood preschool specialization program. This major is jointly offered with the College of Human Resources. Specifically designed to prepare future teachers of children under six, this program will lead to the State of Illinois Early Childhood Certificate. Students wishing the special education endorsement should select the special education option.¹ Students wishing to teach public school kindergarten are directed to the K-3 specialization program.

<i>General Studies Requirements</i>	45
Including GSB 202, 212, GSC 100, GSD 117 or 119, GSE 201	
<i>Requirements for Major in Early Childhood Education</i>	62
Child and Family 227, 237, 240, 245, 337, 345, 466, 471-6	26
Curriculum, Instruction, and Media 209, 213, 317, 318, 418, 419, 435	21
Food and Nutrition 100	3
Music 303	3
Psychology 301	3
Special Education 400	3
Speech Communication 444	3
<i>Electives</i>	13
Special Education Option—Special Education 405 ² , 406, 412	
<i>Total</i>	120

¹Special Education 400 and Speech Communication 444 are required for the special education endorsement.
²Special Education 405 is taken in place of Curriculum, Instruction, and Media 318 for students electing the special education option.

EARLY CHILDHOOD EDUCATION MAJOR—KINDERGARTEN THROUGH GRADE THREE SPECIALIZATION

In the early childhood education kindergarten through grade 3 specialization program, special emphasis is placed on teaching young children in the elementary school. This major leads to the State of Illinois Standard Elementary Certificate.

<i>General Studies Requirements and Additional General Education</i>	75
<i>Requirements for Major</i>	
Physical and Biological Sciences (GSA)	11
Social Sciences (Including GSB 202 and 300 or 301, other GSB courses)	11
Fine Arts (Including GSC 100, 101, or 205. Must include Music 101 or two levels of Music 030, Music 300, and Art 348. May be taken as part of GSC.)	14
Language Arts (Including GSD 101; 117 or 119; GSD speech and GSC literature)	16
Mathematics (Including Mathematics 114 or equivalent to substitute for GSD 107 and Mathematics 314	7
Health and Physical Education (Including GSE courses and Physical Education 202	7
Electives (Curriculum, Instruction, and Media 427 recommended) ¹	9
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Specialization Requirements for Major</i>	25
Curriculum, Instruction, and Media 213, 312, 315, 316, 324, 423, 426, 435 ¹ , Education 312 ² , Vocational Education Studies 368	
<i>Electives</i>	4
<i>Total</i>	128

¹Applies as a general education certification requirement for major.
²Education 312 must be taken concurrently with Curriculum, Instruction, and Media 324.

Elementary Education Major

A Bachelor of Science degree with a major in elementary education entitles the

student to apply for the State of Illinois Standard Elementary Certificate, which will allow the holder to teach in kindergarten through ninth grade.

Elementary education majors may select either an area of interest consisting of eight semester hours of electives in educational media, black American studies, foreign languages, language arts, mathematics, science, or social studies, or the student may elect to earn a minor in either educational media or black American studies.

General Studies Requirements and Additional General Education

<i>Requirements for Major</i>	67
Physical and Biological Sciences (GSA)	11
Social Studies (Including GSB 202, 212, and 300 or 301)	11
Fine Arts (Including GSC 100, 101, or 205; must include one music and one art course, which may be taken as part of GSC).	9
Language Arts (Including GSD 101; 117 or 119; GSD speech and GSC literature)	16
Mathematics (Including Mathematics 114 or equivalent to substitute for GSD 107 and Mathematics 314)	7
Health and Physical Education (GSE)	5
Electives (May be taken from electives cited under specialization requirements to further enhance and support this area)	8
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Specialization or Minor Requirements for Major</i>	26
Curriculum, Instruction, and Media 312, 315, 423, 424 426, 435 ² ..	18
Electives	8 ¹
Electives to be selected from one of the following areas: instructional materials; black American studies; foreign languages (See Foreign Languages and Literatures); Language Arts (English 290, Speech Communication 430 recommended); Mathematics, Science (Curriculum, Instruction, and Media 427 ² or Botany 462 recommended); social studies (Political Science 332, Sociology 302, Geography 300 recommended)	
<i>Electives</i> ³ (eight hours must be in Curriculum, Instruction, and Media courses)	11
<i>Total</i>	128

¹Elective hours from general education may apply; combined total must equal 16 hours.

²Applied as a general education certification requirement for major.

³Many states require a course on special needs learners and two courses in reading methods. Two courses in reading are required for teaching in Chicago schools.

Secondary Education Majors

Students who elect to pursue a Bachelor of Science degree in the College of Education, for purposes of preparing to teach in junior or senior high schools, should select academic majors and minors from the areas included in the listing below. Included in the column headed Major are those areas for which Southern Illinois University at Carbondale has approval from the State of Illinois Office of Education and from the State Teacher Certification Board.

TEACHING AREA	MAJOR	MINOR ¹
Agricultural Education ²	X	
Art	X	
Biological Sciences	X	X
Black American Studies		X

Botany ³	X	X
Business Education ²	X	X
Chemistry	X	X
Earth Science		X
Economics	X	X
Educational Media		X
English	X	X
Foreign Languages	X	X
Geography	X	X
Health Education	X	
History	X	X
Home Economics Education ²	X	
Journalism	X	X
Language Arts and Social Studies	X	
Mathematics	X	X
Microbiology		X
Music	X	X
Occupational Education (Industrial Arts and Trades and Industries) ²	X	
Philosophy		X
Physical Education	X	X
Physics	X	X
Physiology		X
Political Science	X	X
Psychology		X
Social Studies	X	
Sociology		X
Speech Communication	X	X
Theater		X
Zoology ³	X	X

¹All minors used for certification purposes must include a minimum of 18 semester hours.

²Requirements for programs in agricultural education, business education, home economics education, and occupational education may be found in the catalog section titled Vocational Education Studies.

³A student with a major in botany or zoology should have a minor in the other in order to meet certification standards for teaching biology at the high school level.

Each student who wishes to apply for the Standard High School Certificate through the certification entitlement process at Southern Illinois University at Carbondale must fulfill the following requirements of the University's Teacher Education Program:

1. The individual must have completed a baccalaureate program at Southern Illinois University at Carbondale.

2. The individual must have completed one of the approved majors included in the previous listing.

3. The individual must have fulfilled requirements for certification related to the state and federal constitutions and an American government or American history course by either (a) taking GSB 212, or, 300 or, 301; (b) taking a course in American history or political science other than those listed in (a), above, and passing the constitution test administered by Southern Illinois University at Carbondale; (c) presenting written notification from another institution that a course in American history or political science has been passed and that the Illinois and United States Constitutions tests have been passed.

4. The individual must have fulfilled certification requirements in health and physical education which can be satisfied by taking GSE 201 and two hours in GSE 100-114 courses.

5. The individual must have completed the following sequence of professional education courses:

<i>Professional Education Sequence</i>	24
Decision Component	
Education 201	1 ¹
Basic Professional Block	
Education 301	2
Education 302	2
Education 303	2
Education 304a, b, c, d, e, f, g, or h	2
Professional Semester ²	
Education 350	3
Education 400	4
Education 401	8

¹Must be completed prior to admission to the teacher education program.

²See catalog section titled Professional Education Experiences for prerequisite for student teaching in the professional semester.

6. The individual must have fulfilled State Teacher Certification Board general education distributions in the required areas: language arts, science, mathematics, social studies, humanities, health and physical education.

Students who wish to prepare to teach in middle schools or junior high schools should inform their advisers of this interest early so they can include in their programs those courses which will prepare them for teaching in that area. The student's electives should be planned to include course work in a subject matter area of major interest to the student.

Courses

209-2 Philosophy of Creativity. The creative process in the developing child. Emphasis will be upon the levels, dimensions, and individuality of creativity as it is manifested, observed, and nurtured in preschool children. (To be taken concurrently with Child and Family 240 and 245 by early childhood preschool majors.)

213-2 Understanding the Elementary School Child. Child development concepts necessary for understanding the elementary school child, with information provided on preschool, primary, and intermediate grade levels.

214-2 Understanding and Building a Positive Self-Concept in Young Children. Provides background information of the development of the self-concept. Methods for developing a positive self-concept in three-to-five-year-old children will be explored and demonstrated in the trainee's classroom. One and one-half hour lecture; one hour laboratory.

215-2 Understanding and Developing Cognitive Development in Young Children. Provides background information on the cognitive development of three-to-five-year-old children and information on materials, equipment and appropriate activities for this age group. Practical experiences will be demonstrated in trainee's classroom. One and one-half hour lecture; one hour laboratory.

216-2 Understanding and Developing Physical Development in Young Children. Provides background information on the physical development of three-to-five-year-old children and information on materials, equipment, and appropriate activities for this age group. Practical experience will be demonstrated in trainee's classroom. One and one-half hour lecture; one hour laboratory.

217-2 Establishing and Maintaining a Learning Environment for Young Children. Organizing space, equipment, and materials for a learning environment for young children. Maintaining a planned arrangement for program activities and children's participation within the program. Prerequisite: 215 and 216 or consent of instructor.

218-2 Organizing and Sustaining the Preschool Program. Provides an integrating experience of organizational schemes for preschool programs. Supporting behaviors and planning are stressed. Practical application will be demonstrated in the trainee's classroom. One and one-half hour lecture; one hour laboratory. Prerequisite: 215, 216, and 217 or equivalent experiences/competencies.

219-2 Establishing Home, School, Community Relations. Provides background and resource ideas and materials necessary for establishing a good home, school, community oriented program. Practical application will be demonstrated in the trainee's program. One and one-half hour lecture; one hour laboratory.

223-2 Language Arts Activities for Young Children. Provides background information on the development of language usage and comprehension in three-to-five-year-old children. Materials, equipment, and activities for advancing language development will be studied and developed. Practical application will be demonstrated in the trainee's classroom. One and one-half hour lecture; one hour laboratory.

258-1 to 4 Credit for Work Experience. This course includes work experience relevant to the student's major program, such as work in day care centers, teacher's aid in a public school, or with federal, state, or local agencies or programs that deal with children. Prerequisite: 12 semester hours completed with a grade of *B* or better in the student's major area of concentration in the CIM department and consent of undergraduate affairs committee, Department of Curriculum, Instruction, and Media.

312-3 Teaching Reading in the Elementary School. Examination of the reading process with emphasis on the factors and conditions that affect reading. Emphasis on the formulation of a philosophy of reading and its implications in relation to methods, materials, organizational procedures, and evaluation techniques.

315-3 Teaching Mathematics in the Elementary School. Objectives of mathematics education, learning theory as it is related to mathematics, major concepts to be taught, modern approaches to instruction, with emphasis on the use of concrete learning aids. Four class hours and two laboratory hours per week.

316-2 Early Childhood Education Methods and Curriculum (K-3). Philosophy and principles underlying the teaching of four-to-eight-year olds. Emphasis upon organization, equipment, materials, and methods for promoting growth of young children. Prerequisite: concurrent enrollment in Education 302.

317-4 Early Childhood (Preschool) Curriculum I. Understanding the role of the teacher in integrating the principles underlying the child-development with the natural interests and activities of the child 3-5 through the use of equipment, materials, and educational methods. Emphasis will be on language and affective development. Practical experiences in a preschool setting one-half day per week. Prerequisite: 209 and Child and Family 240.

318-5 Early Childhood (Preschool) Curriculum II. Diagnosing factors in the preschool learning situation, prescribing learning experiences, assessing effectiveness of learning, and developing inquiry. Emphasis on cognitive and psycho-motor development. Practical experiences in a preschool setting — one day or two one-half days per week. Prerequisite: 317.

324-2 Early Childhood Social Learning Methods. The objectives, procedures, and methods of designing and implementing social learning environments for early childhood education programs; including an overview of significant early social learning theory and practice. Two hour block required for practicum experiences.

361-3 Teaching Reading in High School. A foundation course in how to teach reading in junior and senior high school; developmental and remedial reading programs; appraisal of reading abilities; methods and materials of instruction in the content areas.

390-1 to 3 Readings. In-depth reading in various areas of education as related to the fields of (a) Curriculum, (b) Supervision for instructional improvement, (c) Language arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social studies, (h) Early childhood education, (i) Elementary education, (j) Middle school, (k) Secondary school, (l) Disadvantaged children and youth, (m) Instruction, (n) Educational media. Prerequisite: consent of instructor.

393-1 to 6 Individual Research in Education. The selection, investigation, and writing of a research topic under the personal supervision of a member of the departmental staff in one of the following areas: (a) Curriculum, (b) Supervision for instructional improvement, (c) Language arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social studies, (h) Early childhood education, (i) Elementary education, (j) The middle and junior high school, (k) Secondary education, (l) Disadvantaged children and youth, (m) Instruction, (n) Educational media, and (o) Environmental education. Maximum of 6 hours to be counted toward a bachelor's degree. Prerequisite: consent of instructor.

400-2 Simulation and Gaming. The role of simulation and gaming in instruction, the availability of commercial games and simulation devices, and the theoretical backgrounds used in constructing teacher-made games are to be examined.

401-1 to 3 Problems in Public School Reading. Requires attendance at all sessions of a reading conference; preparation of a paper showing practical applications of theory to the student's own teaching situation.

402-3 Education for Disadvantaged and Culturally Different Students. The student examines the characteristics of behavior and learning patterns of culturally different and socioeconomically disadvantaged children. Content also includes school adjustment, experiential background, self-concept, language development, and appropriate teacher behaviors and teachings strategies.

407-3 to 9 (3 per topic) Diagnostic and Corrective Techniques for the Classroom Teacher. A presentation of diagnostic and remediation techniques with emphasis placed on appropriate methods and materials to be used in classrooms in the areas of (c) Language arts, (e) Mathematics, and (f) Reading. Prerequisite: specialist methods course in field selected by student and/or consent of instructor.

409-3 Creative Teaching. To assist pre- and in-service teachers in acquiring methods and

materials that will improve instruction in the public school classroom, with special attention to the characteristics and needs of students. Prerequisite: Education 302.

410-2 Creative Writing in the Public School. Techniques of encouraging creative writings in the schools.

412-3 to 15 (3 per topic) Improvement of Instruction in Early Childhood Education (Preschool-Grade 3). Examines recent findings, current practices, and materials used in early childhood education in the fields of (c) Language arts, (d) Science, (e) Mathematics, (f) Reading, and (g) Social studies. Prerequisite: specialized methods course for the field of study selected by the student.

415-3 Improvement of Instruction in Middle School Mathematics (Grades 4-8). Examines recent findings, current practices, and materials in the middle school setting. Prerequisite: 315 or consent of instructor.

418-2 History and Philosophy of Early Childhood Education. A survey of the history and philosophies of early childhood education with its implication for current program practices. Student's analysis of personal philosophy of early childhood education. Prerequisite: 316, 318, senior or graduate standing.

419-3 Parent Involvement in Education. Materials, techniques, and resources suitable for use by teachers in helping parents and teachers to understand how they can help each other in the partnership responsibilities of the education of children from a variety of backgrounds. Prerequisite: 317, student teaching, or consent of instructor.

420-3 Teaching the Adult Functional Illiterate. The emphasis in the course will be on understanding the problems of the individual whose literacy level does not permit full participation in the economic, social, and civic opportunities available to the majority of citizens. Prerequisite: permission of instructor.

423-3 Teaching Elementary School English Language Arts. Oral and written communication processes with emphasis on the structure and process of the English language arts in the elementary school. Specific attention to the fundamentals of speaking English, writing, spelling, and listening. Study of learning materials, specialized equipment and resources.

424-3 Teaching Elementary School Social Studies. Emphasis on the structure and process of teaching social studies in the elementary school setting. Specific attention to the fundamentals of developing social studies objectives, planning units, developing a general teaching model, organizing the curriculum, and evaluating behavioral change. Study of learning materials, specialized equipment, and resources.

426-3 An Introduction to Teaching Elementary School Science. Content and methods of elementary school sciences, grades K-8. Emphasis on the materials and strategies for using both traditional and modern techniques of science education. One or more field trips.

427-4 Science Process and Concepts for Teachers of Grades of N-8. (Same as Botany 462). Specifically designed to develop those cognitive processes and concepts needed by elementary school teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

435-3 Literature for Children. Studies types of literature; analysis of literary qualities; selection and presentation of books and other media for children; and, integration of literature in preschool, elementary, and library settings.

436-2 Library Research Methods. Introduction to the use of library materials for graduate research. The use of bibliographies and reference works in various subjects. Students will consult sources in their own disciplines. Not open to students in the educational media program.

437-3 Educational Media in Training Programs in Business and Industry. The utilization of visual, audio, electronic, display, and print media in industrial and business training programs. Includes experiences in using sources, selecting and evaluating media, the operation and maintenance of media hardware, and the use of multi-media. Not open to students pursuing a graduate major in educational media.

438-3 Introduction to Technical Services. Organization of library materials. Emphasis on cataloging and classification. Includes acquisition, processing, and circulation of materials. The Dewey Decimal classification system and Sears list of subject headings are stressed. Laboratory assignments.

439-3 Basic Reference Sources. Introduction to the principles and methods of reference work. Concentration on the study and examination of the tools which form the basic reference collection of the school library.

440-3 Selection of Media. Evaluation of print and non-print media; resources and services; competencies for efficient purchasing and selecting of media.

442-4 Administration of the School Media Program. Functions and management of elementary and secondary school library media programs with emphasis on services, personnel, financial aspects, facilities, and evaluation. Current issues and trends as reflected in the literature. Field trips to school library media centers.

445-3 Media for Young People. The selection and use of books and other educational media for students in the junior high and senior high school.

450-3 Photography for Teachers. Photography as a tool of communication in the modern

school. Techniques of camera handling, visually planning a story, macro-photography, and color slides.

451-3 Photographic Preparation of Educational Media. Techniques of photography used in producing prints, overhead transparencies, daylight slides, high contrast materials, picture stories, filmstrips, and other photographic instructional materials. Prerequisite: 450 or consent of instructor.

453-3 Local Production of Educational Media. The study of the various processes and techniques used by classroom teachers in the production of locally-made nonphotographic instructional material.

455-3 Organization and Production of Media for Self-Instruction. The study of various programming techniques and the procedures used in producing, designing, and evaluating materials used for self-instructional purposes. Includes organizing a teaching segment and producing the needed materials to create a self-instructional package.

458-3 Classroom Teaching with Television. Classroom utilization of open and closed circuit television. Emphasis is placed on the changed role of the classroom teacher who uses television. Evaluation of programming, technicalities of ETV, and definition of responsibilities are included. Demonstration and a tour of production facilities are provided.

462-3 Middle and Junior High School Programs. Focuses on the development of middle and junior high school curriculum, and the identification of instructional activities which relate to the pre and early adolescent student. It is anticipated that the student will be able to plan and develop teaching units and evaluate procedures complementary to this portion of the school structure.

464-2 Student Activities. Analysis of extra-class activities and programs in public schools with a focus on the status, trends, organization, administration, and problems.

468-3 Science Methods for Junior and Senior High Schools. An analysis of the skills and strategies needed for effective science instruction in the secondary school. The acquisition of teaching skills and the development of instructional materials. Classroom observation and one or more field trips may be required.

469-2 Teaching Social Studies in the Secondary School. Emphasis is placed upon instructional strategies and curricular designs in social studies at the junior and senior high school levels.

496-2 to 6 (2 to 4 per semester) Field Study Abroad. Orientation and study before travel, readings, reports, and planned travel. Includes visits to cultural and educational institutions. Maximum credit hours in any term is 4.

498-1 to 15 (1 to 3 per topic) Workshops in Education. Critical evaluation of innovative programs and practices. Acquaints teachers within a single school system or in a closely associated cluster of school systems with the philosophical and psychological considerations and methods of implementation of new programs and practices in each of the following areas: (a) Curriculum, (b) Supervision for instructional improvement, (c) Language arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social studies, (h) Early childhood education, (i) Elementary Education, (j) The middle school, (k) Secondary education, (l) Disadvantaged children and youth, (m) Instruction, (n) Educational media, and (o) Environmental education. (p) Children's Literature. Maximum of six hours toward a master's degree. Prerequisite: consent of instructor.

500-3 Research Methods in Education.

501-3 Organization and Administration of Reading Programs.

502-3 Education of Disadvantaged Students: Research and Teaching.

504-3 Systematic Approaches to Instruction.

508-3 Supervision of Professional Education Experiences.

509-3 Foundations of Environmental Education.

511-3 Seminar in Psychology of Elementary School Subjects.

512-3 Reading in the Elementary School.

513-3 Kindergarten-Primary Reading.

515-3 Diagnosis and Correction of Mathematics Disabilities.

517-3 Early Childhood Programs: Organization and Administration.

518-3 Early Childhood Education.

521-8 (4,4) Diagnosis and Correction of Reading Disabilities.

522-3 Teaching Reading Skills to College Students.

523-3 Language Arts in the Elementary School.

524-3 Teaching the Social Studies in the Elementary School.

526-3 Problems in Elementary School Science Education.

531-3 The Elementary School Curriculum.

532-3 Research in Elementary Education.

533-3 Instructional Leadership in Elementary Education.

534-3 Organization of the Elementary School.

538-3 Organization of the Nonbook Collection.

539-3 Reference Services of the School Media Center.

540-2 Mass Communications in Education.

542-3 Administration of an Educational Media Center.

- 544-3 Administration of the Community College Media Program.
- 545-3 Selection for the Community College Media Program.
- 546-3 The Library of Congress Classification Scheme.
- 548-5 Production and Utilization of Media.
- 549-2 Designing Multi-Image Learning Materials.
- 550-3 History of Media.
- 551-4 Survey of Research and Developments in Educational Media.
- 553-2 Instructional Design.
- 554-3 Integration of Educational Media.
- 555-3 Visual Learning.
- 560-3 Instructional Television.
- 561-3 Reading in the Secondary School.
- 569-3 Principles and Trends in Secondary School Social Studies Education.
- 571-3 Secondary School Curriculum.
- 573-3 Perspectives on the Future and Its Schools.
- 580-3 Current Developments in Major Subject Areas in Secondary Schools.
- 582-3 Research in Secondary Education.
- 585-3 to 15 (3 per topic) Seminars in Education.
- 586-3 Curriculum Design and Development.
- 587-3 Curriculum Implementation and Evaluation.
- 590-1 to 15 (1 to 3 per topic) Independent Readings.
- 593-1 to 15 (1 to 3 per topic) Individual Research in Education.
- 594-(3 to 9 per topic) Practicum.
- 595-(2 to 8 per topic) Internship.
- 596-3 to 6 Independent Investigation.
- 599-2 to 6 Thesis.
- 600-1 to 32 (1 to 16 per semester) Dissertation.

Dance (Minor)

(SEE PHYSICAL EDUCATION)

Dental Hygiene (Program, Major, Courses)

This program of study is designed to prepare the student to successfully enter the health profession of dental hygiene. Upon completion of the program, the graduate should be capable of passing the written National Board Examination, State/Regional Examination including the required clinical practical examination.

The primary role of dental hygienists is education and prevention of oral disease. Therefore, they must have a basic knowledge of the human body and a detailed knowledge of the oral cavity. The student develops skill, dexterity, and use of judgment in procedures relating to preventive dentistry on clinical patients scheduled in the dental hygiene clinic. Services provided by the dental hygienist are regulated by state laws which vary among the states, but all include the services of scaling and polishing teeth, x-ray examination, patient education and nutritional counseling, application of preventive medicaments, administrative procedures, chairside assisting, and some laboratory techniques. All the services must be performed under the supervision of a dentist.

Since the curriculum includes many science courses the entering student should have a thorough background in the basic sciences including chemistry, biology, and general sciences. Facilities limit enrollment to 55 students admitted only in the fall semester. Additional application information is required other than that required for admission to the University, including the results of the Dental Hygiene Aptitude Test. This test should be taken at the fall testing date a year prior to the fall semester of admission. Additional expenses of approximately \$1600 are required to cover the cost of instruments, uniforms, insurance, and other items in addition to textbooks.

The program is served by an advisory committee made up of practicing dentists and dental hygienists. Current members are: Stanley P. Hazen, DDS, dean, School of Dental Medicine, Southern Illinois University at Edwardsville; Fred D. Nolen, DDS, president, Southern Illinois Dental Society, Carbondale; Betty Dugger, RDH, Marion; Clifford G. Neill, DDS, Carbondale; Arthur L. Lenzini, DDS, Herrin; Sandra Blankenship, RDH, Marion; Ann Stark, RDH, Veterans' Administration Hospital, Marion; Sue Cignetti, RDH, Peoria; Gary Klugman, DMD, Marion Federal Penitentiary, Marion; Bennie Fitts, DDS, chief, dental health, Veterans' Administration Hospital, Marion; and a student member.

A licensed dental hygienist may be employed in private practice offices, in school systems, in industrial health clinics, as civil service employees in government agencies or, with additional education, as a teacher in dental hygiene schools, in public health, in research, in administration, or as a commissioned officer in the armed services.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Dental Hygiene

GSA 209	3
GSB 202, 203	7
GSD 101, 153	6
Chemistry 140a,b	8
Microbiology 301	4
Physiology 301	4
Dental Hygiene 133, 136, 137a,b, 138, 201, 209, 210a,b, 211, 215, 217, 218a,b, 220a,b, 240, 241	57
Total	89

Courses

- 133-2 Histology and Embryology.** The student will learn the microscopic components of the primary tissue groups of the human body and will be expected to identify microscopically in detail, the dental tissues of the oral cavity. The course also enables the student to relate the embryonic development of the head to the normal and abnormal structures of the adult head and oral cavity. Lecture two hours.
- 136-4 Cranial and Oral Anatomy.** During the first part of the course, the student will study the detailed anatomic structures of the head and neck including skull, muscles, nerves, and blood supply. Following this, the student will learn to recognize and identify in detail the structures within the oral cavity including the tongue, salivary glands, lips and cheeks, and cheeks and teeth, both permanent and primary. Lecture three hours. Laboratory three hours.
- 137-10 (5, 5) Pre-Clinical Dental Hygiene.** (a) The student is introduced to the profession of dentistry with emphasis on the role and duties of a hygienist. Basic skills and techniques of instrumentation will be acquired using manikins in the laboratory followed by clinical experience on selected patients. Included will be didactic instruction in normal and abnormal tissue conditions, the role, function, and structure of calculus deposits. Additional skills, techniques, and procedures include clinical rules and procedures, aseptic technique, patient and operator positioning, rules of professionalism. Lecture two hours. Laboratory six hours. (b) The student will continue to apply information and skills learned in (a) on selected patients with varying oral hygiene needs. New information, procedures, and skills will be introduced during the course with the student expected to master one area before proceeding to the next. Included are complete health histories, office emergencies, charting for deposits and tissue conditions, auxiliary scaling instruments, rationale and techniques of polishing. The ability to perform basic dental health education and manage patients with specific physical and mental problems will be developed. Lecture two hours. Laboratory six hours. Must be taken in a,b sequence.
- 138-3 Pathology.** The student will learn to recognize the appearance, causes, and body's responses to pathological conditions including congenital disorders, circulatory, and neurological ailments, tumors and neoplasms. Special attention will be placed on pathologi-

cal conditions of the oral cavity including dental caries, periodontal disorders and lesions of the hard and soft tissues. The student will apply this knowledge by giving intra and extra oral examinations on selected patients and recording the findings. Lecture two hours. Prerequisite: 218a,b.

201-4 Dental Materials and Assisting Techniques. The student will study the physical and chemical properties of various dental materials used in dental practice including plaster and stone, impression materials, synthetic resins, metals and cements. In the laboratory the student will manipulate those dental materials and recognize the effects of proper and improper techniques. Emphasis will be placed on dental assisting techniques for both operator and laboratory in the generalist and specialist type of practices. Lecture three hours. Laboratory three hours. Prerequisite: inorganic chemistry.

209-3 Dental Hygiene Clinic. The student will perform professional services of a hygienist on designated clinical patients and is expected to demonstrate improvement of skills covered in 137 a,b. Additional skills incorporated into clinical procedures include application of fluoride gels, maintenance and sharpening of scaling instruments, recognition and detection of carious lesions, extended or home care education, auxiliary polishing devices, caries etiology tests and nutritional counseling. Laboratory 12 hours, eight weeks.

210-12 (6, 6) Clinical Dental Hygiene and Radiology. (a) The student will continue to perform the professional services of a hygienist on designated clinical patients and will be expected to demonstrate improvement of skills covered in 137 a, b and 209. Those skills incorporated into clinical procedures include application of fluoride gels, maintenance and sharpening of scaling instruments, recognition and detection of carious lesions, extended home care education, auxiliary polishing devices, caries etiology tests, and nutritional counseling. Dental radiographs will be taken on clinical patients as a part of required clinical experience. Laboratory 12 hours. (b) The student continues clinical experience and is expected to show improvement in skills and abilities. Additional procedures include application of stannous fluoride, patient control programs, complete charting of the oral cavity, care of dental prosthesis, use of ultrasonic cleaning devices, measurement of periodontal pockets, and maintenance of dental equipment. Additional clinical experience is provided in the Model Cities clinic. Students will continue to take dental radiographs on clinical patients as a part of required clinical experience. Laboratory 12 hours.

211-2 Seminar. Theoretical content is presented covering procedures and techniques incorporated into the concurrent clinic course. Additional requirements include dental specialties presented through guest lecturers with two abstracts of published articles relating to those specialties; reports on model cities assignments and outside activity experiences with a research paper on some phase of dentistry; assignment of paper on patient problems which incorporate and correlate course material from preceding courses. Lecture two hours. Prerequisite: concurrent enrollment in 210B.

215-1 Ethics, Jurisprudence, and Office Management. The student will identify the rules of conduct and behavior that a dentist and hygienist must adhere to; differentiate between ethical and unethical, legal and illegal behavior, and understand the consequences of unethical and illegal acts relating to the practice of dentistry. Professional responsibilities and legal obligations of the dental profession and how to prevent a malpractice charge or lawsuit will be included.

217-2 Dental Nutrition. The biologic functions of essential nutrients are studied in their relation to growth and development of dental and oral tissues. Nutrition in health and disease is considered in detail; food sources of essential nutrients are identified. Knowledge gained is applied to the nutritional management and prevention of dental health problems in clinical practice through dietary counseling. Lecture four hours, eight weeks. Prerequisite: Chemistry 140 a, b; Physiology 301.

218-4 (2, 2) Dental Radiology. (a) The student will learn the techniques of exposing, processing, and mounting bitewing and periapical dental x-ray surveys, and will learn how x-rays are produced, hazards and precautions in using x-ray equipment, and the chemical composition and action of processing solutions on x-ray film. In the laboratory, the student will receive individual assistance in learning the techniques of exposing and processing films. (Lecture three hours. Laboratory three hours. Eight weeks.) Prerequisite: inorganic chemistry. (b) The student will learn special dental survey techniques including paralleling, occlusal, and special views, and will identify anatomical landmarks and recognize appearance of pathological conditions as viewed on dental x-rays. In the laboratory the student will receive assistance in learning special survey techniques. Lecture one hour. Laboratory two hours. Must be taken in a,b sequence. Prerequisite: 136.

220-6 (3,3) Community Dentistry. (a) Includes both the theoretical and practical aspects of preventive dentistry and public health. The student will discuss various methods utilized in developing, implementing, and evaluating plaque control and will have the opportunity to design a preventive dental program. In addition, the principles and practice of public health will be discussed. Emphasis is placed on the role of the dental hygienist in public health programs and related practical problems. Incidental expenses will be at least \$7.50 per semester. Lecture two hours. Laboratory two hours. (b) Continuation of public health with field experience. Dental health education with field experiences in student teaching in the

elementary district schools. Incidental expenses will be at least \$7.50 per semester. Lecture two hours. Laboratory two hours. Must be taken in a, b sequence.

240-2 Dental Pharmacology and Anesthesia. The student will recognize the various types of drugs, their actions and effects on tissues of the body. Special emphasis will be placed on those drugs most commonly prescribed by the dentist. The student will study the anesthetics commonly used in a dental office and the techniques of administering them. Lecture two hours. Prerequisite: chemistry, physiology.

241-2 Periodontology. The student will be introduced to the specialty of periodontics, including a review of the topics of classification, etiology, and the treatment of periodontal disease. Clinically, the student will perform a complete examination, scaling and root planing for the periodontal patient as presented in theory in this course. Consideration will also be given to special adaptations and recommendations of oral physiotherapy for the periodontal patient.

Dental Laboratory Technology (Program, Major, Courses)

The dental laboratory technology program prepares the student to be a competent dental technician in the commercial laboratory, an educational institution, a dental manufacturing company, or the private dental office. To implement the goal, the prospective student must satisfactorily meet the requirements of courses in both the dental laboratory area and in the science, business, and humanities area.

Persons interested in careers in dental technology should have a sincere interest in working with their hands and find satisfaction in their creative work.

Enrollment of beginning students is limited by size of faculty and physical facilities with new students admitted only in the fall semester. Additional application information is required other than that required for admission to the University.

An advisory committee whose members are drawn from the profession and from educational institutions serves the program. Current members are: Virgil Beadle, Sr., DDS, Carbondale; James D. Harrison, DDS, director of dental auxiliaries, School of Dental Medicine, Southern Illinois University at Edwardsville; Tilghman S. Tade, CDT, Tade Dental Laboratory, Belleville; Larry E. Worthey, University Dental Laboratory, Edwardsville; William Cotton, DDS, U.S. Naval Dental Research Institute, Bethesda, Md.; Andrew Larson, executive director, Illinois Dental Lab Association, Northfield; Dan Sullivan, Ney Gold Company, Kirkwood, Mo.; and Todd Toepper, TNT Dental Laboratory, Janesville, Wisc.

Graduates of the two-year dental laboratory technology program find that career opportunities are excellent. The trained dental technician not only has a wide choice of geographic location for the pursuit of a career, but can also choose working conditions. Graduates are employed by commercial dental laboratories, dental schools, dental supply companies, private dental offices, or are self-employed in their own dental laboratories.

The student should expect to spend about \$425 for a dental kit, laboratory jacket, and Delta Tau Club fee over the two-year period.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

<i>Requirement for Major in Dental Laboratory Technology</i>	
GSD 101, 152	5
School of Technical Careers 102, 104, 115a, 141	9
Dental Laboratory Technology 102, 103a,b, 104a,b, 106, 113a,b, 128, 143, 200, 202, 204a,b, 206a,b, 210	61
<i>Total</i>	75

Courses

102-4.5 Tooth Anatomy Theory and Laboratory. The student will be able to write definitions on the nomenclature of teeth and their supportive structures; draw five different peripheral views of maxillary and mandibular teeth; carve maxillary and mandibular teeth in plaster, three times natural size and in wax, natural size. Lecture three hours. Laboratory 17 hours. Five weeks.

103A-4.5 Complete Dentures Theory and Laboratory. The student will be able to: write the steps of denture construction; identify and use impressive materials, lab stone and lab plaster, acrylic resins, and articulators, namely the Hanau Model H and Whip-Mix; construct edentulous casts, individual trays, base plates, occlusal rims; and mount casts on the above named articulators. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 105.

103B-4.5 Advanced Complete Dentures Theory and Laboratory. The student will be able to: describe the theory inherent in all phases of full denture construction; set up teeth on the Hanau, Whip-Mix, and Simplex articulators; select and set teeth for different classes of arch forms; wax, invest, process and finish full dentures; rebase, reline, duplicate, and repair full dentures. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 103A.

104A-4.5 Removable Partial Dentures Theory and Laboratory. The student will be able to: write the basic steps of partial denture construction; identify and use impression materials, laboratory stones, plaster, surveyors, waxes, and different types of forms of artificial teeth; construct and mount master casts, survey and design partial denture cases, and arrange teeth. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 103B.

104B-4.5 Advanced Removable Partial Denture Theory and Laboratory. The student will be able to: describe and do the planning, designing, and surveying of partial dentures; construct a refractory cast, wax, invest, and finish partial denture frameworks; set up artificial teeth on the partial frames; and, repair broken partial. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 104A.

106-4.5 Dental Orthodontics and Pedodontics. The successful student will be able to fabricate a maxillary hawley, a mandibular hawley, holding arch, space maintainer, suture opener, tongue spikes, tongue crib, occlusal-palatal splint, space regainer, stabilizing plate, and bite planes and obturator; operate the soldering machine and equipment associated with it; write the gauges of wires that are used for the orthodontic appliances; and write the theory that is associated with the fabrication of the above named appliances. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 104b.

113A-2 Science of Dental Materials. The student will be able to: identify orally, as well as written, the uses and composition of dental gypsum products, namely, plaster, stones, and investments, impression materials, dental resins, dental cements, polishing agents, abrasives, and dental waxes. Lecture two hours.

113B-2 Science of Dental Materials. The student will be able to identify orally, as well as written, the physical and mechanical properties of metals and alloys, namely, dental golds, chrome cobalt alloys, and nickel cobalt alloys; the control of their physical properties, namely, strain hardening, alloying and heat treatment, the chemistry of tarnish and corrosion, gypsum investments for inlay procedures, casting and soldering techniques, and dental porcelains. Lecture two hours.

128-1 Oral Anatomy. The student will be able to identify the anatomical features of the head and oral cavity; identify the blood and nerve supply to the oral cavity and area; be able to list the muscles of mastication, and know the origin and insertion of each muscle; identify the anatomical parts of the maxilla and mandible; differentiate the movements of the mandible; and be able to identify the temporomandibular articulations. Lecture one hour.

143-1 Orientation to Dental Technology. The student will be able to: identify the specialties of dental technology; identify opportunities for the dental technician in the large laboratories versus the small laboratories or the dental office; identify the differences in laboratory prices from different parts of the country, and what determines laboratory prices; write, and orally report, on a term project resulting from an interview with a dental technician, who is a laboratory owner, or who is working as a technician in a dental laboratory. Lecture one hour.

200-4.5 Dental Occlusion. The successful student will be able to draw peripheral views of maxillary and mandibular teeth, and identify the occlusal anatomy; write and identify the functions of the muscles of mastication including origins and insertions; write and identify the anatomy and function of the temporomandibular joint including ligaments; write and identify the nomenclature of occlusion; write and identify the theory inherent in occlusion; wax a maxillary and mandibular quadrant in cusp marginal ridge occlusion and cusp fossa occlusion; and wax a natural full mount rehabilitation case using the principles of occlusion discussed in lecture. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 102.

202-1 Professional Ethics. The student will be able to differentiate between the organizations affecting dental laboratories; be able to identify the industry and its members, and to identify the ethics necessary in dealing and cooperating with the dental profession, and will know the legal requirements of the technician and the dental laboratory. Lecture one hour.

204A-4.5 Beginning Crown and Bridge Theory and Laboratory. The student will be able to: write the definitions of the nomenclature of beginning crown and bridge prosthetics; communicate orally, as well as written, the theory that is necessary for successful completion of the laboratory projects; construct amalgam, stone and copper plated dies; construct master and working casts; construct full and veneer crown, acrylic jackets, inlays and onlays; and operate and maintain crown and bridge laboratory equipment. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 203.

204B-4.5 Advanced Crown and Bridge Theory and Laboratory. The student will be able to: write definitions of the nomenclature of advanced crown and bridge; identify soldering and heat treatment techniques; differentiate between different types of pontics, waxing, venting, and sprueing techniques; write the theory inherent in broken stress bridgework, Steele's facing bridgework, telescope bridgework, and cantilever bridgework; list and perform techniques in crown and bridge repair; identify causes and remedies for porosity, open margins, and general casting failure in crown and bridge construction; and, construct a six-unit maxillary Steele's facing bridge, a five-unit broken stress bridge, and an eight unit telescope bridge. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 204A.

206A-4.5 Dental Ceramics Theory and Laboratory. The student will be able to: write definitions of the nomenclature of ceramics; identify porcelain constituents; identify the parts of the porcelain furnace and their use; construct platinum matrices; and, construct six maxillary porcelain jackets. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 208.

206B-4.5 Advanced Dental Ceramics Theory and Laboratory. The student will be able to: draw substructure design for single and multiple unit bridgework; write the theory of color control, demonstrate the uses and maintenance of porcelain equipment, construct single and multiple unit porcelain to gold bridgework; and, demonstrate a working knowledge of staining and shade control. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 206A.

210-4.5 Dental Laboratory Specialty. The successful student will be able to fabricate dental prosthesis on practical laboratory cases in one of the following specialty areas: full dentures, partial dentures, crown and bridge, or ceramics. Laboratory 20 hours. Five weeks. Prerequisite: all of 100 and 200 level Dental Laboratory Technology courses.

Design (Major, Courses)

The design program is a part of the Division of Comprehensive Planning and Design.

A major in design follows one of four specializations, while at the same time maintaining a core program. The core provides a systems approach to problem solving, while being sensitive to the needs of the areas of specialization. The areas of specialization from which the student may select at the beginning of the junior year are visual communications, urban planning, computer aided design, and product design. The freshman and sophomore years are preparatory and allow the student to carry the required General Studies courses.

The unit recognizes as a goal the maintenance of an educational experience which fosters in individuals a sensitivity and openness to themselves and their environment through an integration of design skills with problem solving strategies and concepts relevant to present and future events. In addition, students and faculty engage in socially useful design research and provide appropriate services to the University and the community.

Bachelor of Arts Degree, College of Human Resources

General Studies Requirements	45
GSA (three areas)	9
GSB (three areas)	9
GSC (three areas) including GSC 205	12
GSD	4
GSE	4
Requirements for Major in Design	68
Design Core	47
Design 100, 102, 150, 152	15

Design 200, 201, 202, 252, 254, Industrial Technology 105	17
6 hours selected from 300, 301, 302, 303, 350, 351, 352, 353, 354, 395	6
9 hours selected from 400, 401, 402, 403, 405, 406, 495, 499	9
Specialization Requirements	21
<i>Electives</i>	7
300-level courses or above outside Design. May include General Studies courses	
<i>Total</i>	120
It is recommended that they earn a grade of <i>B</i> or better in GSC 205 to be admitted as a major in design.	

Design Specializations

Visual Communications: 322, 372, 373, 422, 423, 472 or other courses approved by the division.

Computer Aided design: 342, 392, 442, 492, 493 or other courses approved by the Division.

Urban Planning: 332, 333, 380, 381, 432, 433 or other courses approved by the division.

Product Design: 312, 313, 362, 412, 413, 462, 463, 464, 465.

Courses

Students will be expected to purchase their own materials in some of the courses offered in Design.

100-3 Structure and Form. The study of structure and form through examples selected from the world of natural objects, of man-made artifacts, and of abstract structures. Includes elementary model-building exercises.

102-5 Design Fundamentals. Dialogue, problems and experimentation are used to illuminate the creative problems-solving processes and fundamental cognitive skills of the designer. The individual engages in a variety of projects dealing with such subjects as visual communications, environmental planning, structures, and product design.

103-3 The Way Things Work. A study of various contemporary artifacts designed for our environment and how they work. This course will not be a technical course but a general overview of these artifacts and how they perform the functions they were designed for.

150-4 Foundations in 2-D and 3-D Design. Introduction to the principles of two and three dimensional relationships with emphasis on special techniques, elements of form, light, color, and increased perceptual skills.

152-3 Introduction of Systems Approach to Design. Course material covers the historical foundations of general systems theory and the search for universal principles underlying all open systems. The student is introduced to a unique set of principles for problem solving which apply to all aspects of the design process. Specific design problems will be used to demonstrate how the principles can be generally applied to a large variety of design functions, including the selection of alternatives and the optimization of the final product.

200-3 Basic Representation Fundamentals. Drawing fundamentals, basic freehand drawing principles, architectural sketching, and finished rendering techniques as used to solve design problems and communicate solutions.

201-3 Survey of Design. A critical study of a design field from prehistoric periods to the modern era with reference to the social, political, and technological movement which affected their development. Prerequisite: consent of chairman.

202-3 Basic Materials and Processes. Introduction to tools and skills used in the manipulation of wood, metal, and plastics. Emphasis is placed on projects selected by the students to enhance their ability to solve problems in terms of specified materials and processes.

252-3 Human Engineering for Designers. An introduction to basic man-machine concepts specifically oriented to design students. Subjects include sensory and motor processes, space and arrangement, and environmental factors in design. Prerequisite: 152.

254-3 3-D Modeling Techniques/Basic Photography. This course is divided into two parts: an exploration into the techniques of three dimensional model making as a communication and research tool; and an introduction to the basic techniques of photographic image generation, experimentation in photographic techniques and materials, and transmission of ideas through the photographic image. Prerequisite: 102, 150, 152, 200, 201, 292, or consent of chairman.

300-3 Graphic Reproduction. Exploration of the various techniques and methods utilized by the designer in preparing communication messages for production. Coursework will deal in such topics as paste-up, keyline, scaling photography, cold type and photocomposition, typography, and offset duplication. Prerequisite: 254.

301-3 Structures for Designers. Description and design of elementary physical structures. Includes survey of architectural design. Introduces the computer as a tool for drawing geometrical forms.

302-3 Applied Systems Theory to Design. A pragmatic design course emphasizing the application of systems theory to the design of special environments; e.g., environments for the handicapped, the blind, paraplegics, the elderly, etc. Students have the option of selecting their own projects which they carry through from the conceptual and analytical stage to construction of models. Prerequisite: 152.

303-3 Design Foresight and Assessment. Introduction and overview of the foresight and assessment functions for designers. Includes an exploration of alternative futures and futures-creating methods, types and procedures of planning, implementation processes and techniques, and assessment of the consequences of proposed action.

304-3 Reprographics. An introduction to the field of reprographics, reproduction of images by means of office copying and duplicating equipment. Coursework will include an examination of the processes available, a survey of the equipment and methods, and graphic standards and techniques that can be utilized.

312-3 Product Design Analysis. An introduction to product evaluation techniques, such as human engineering, consumer safety, environmental impact, design liability, and patent protection.

313-3 Materials and Methods I. Exploration of methods, tools and materials for developmental prototyping.

322-3 Visual Communication I. Introduction to visual communication, including exploration of words, images, and symbols. Experimentation with graphic techniques and processes. Emphasis on solving basic visual communication problems. Prerequisite: 150, 152, 200 and 300.

332-3 Survey of Urban Design. Introduction to the study of human settlements. Estimation of the ways man has built cities, landscapes, and buildings. Critical analysis, through historical and contemporary case studies, of the major issues and problems of the urban environment as they affect the individual.

333-4 Urban Design I. Continuation and development of skills learned in core courses by work in projects of small scale dealing with a variety of environments. Prerequisite: 332 or concurrent enrollment.

342-3 Introduction to Computer Graphics. Introduction to the use of the computer in the production of graphic images. Topics include the definition of two- and three-dimensional data, the generation of engineering and perspective images, and animation. Prerequisite: Computer Science 202.

350-3 Research Methods for Designers. An exploration of research methods for designers, both qualitative and quantitative, including search methods, observational methods, experimental methods, and systems, simulation, and gaming methods.

351-3 Cross Cultural Problem Solving. Development of design projects within the cultural conditions outside of the United States through field study trips when possible to arrange or orient lectures and other insight material. A hypothetical follow through on the development of design projects within a selected country exposing sociological and marketing pertinent of ensuing limitations of that country.

352-3 Design Methodology. Exploration and application of the various forms/techniques used in the design process (problem structuring, decision making methods, heuristics, organizing subjective information, and computer assisted design). Prerequisite: 303 or consent of chairperson.

353-3 Projected Images. Experimentation into various forms of projected images as a form of visual expression and documentation. Prerequisite: 150, 254 or concurrent enrollment.

354-3 Introduction to Design Science. An exploration of the seminal work of Buckminster Fuller: his philosophy, conceptual tools and generalized principles; introduction to synergetics; comprehensive anticipatory design science, and the World Game.

362-3 Product Development. Investigation and identification of significant product related human need areas. Application of development methodologies in selected product design projects.

372-3 Visual Communication II. An investigation of the theories and methods of visually communicating concepts and information. Emphasis is placed on the analysis of the communications need and progresses through the production of items in prototype form. Prerequisite: 102, 254 or concurrent enrollment, 322 or consent of chairperson.

373-3 Serigraphy. Introduction to serigraphy (silk screen printing) as a tool of visual communication. The course will be especially useful in providing the graphic reproductive capability for testing designs made in other classes. Various kinds of stencils will be explored: photographic as well as hand made. Prerequisite: 254.

380-2 Environmental Aspects of Urban Planning. Study of the needs of environmental control, including thermal, luminous, sanitary, and acoustic aspects of building and urban environments, building systems, and urban developments.

381-4 Urban Design II. Continuation of urban design I with emphasis on projects of greater scale. Educational environments and others of a socially useful nature will be examined. Prerequisite: 333, 380 or concurrent enrollment, consent of chairperson, and declared specialization in urban design.

392-3 Elementary Topics in Computer Aided Design. Elementary application of computers to the design process. Selected topics include structural studies, environmental systems, architectural design, and system analysis. Prerequisite: 342, Computer Science 202 or consent of chairperson and declared specialization in computer aided design.

395-2 to 6 Independent Study. Creative project developed by student and faculty sponsor and approved by department chairman. Prerequisite: 200, 201, 202, 250, 252, and 254, or consent of chairman.

400-3 Portfolio and Resume. An investigation and implementation of the planning, production, and management of interface information such as resume, portfolio, and presentation of self. Not for graduate credit. Prerequisite: 200, 201, 202, 250, 252, 254 plus 9 hours elective on 300 level or consent of chairman.

401-3 Problem Solving in Applied Design. A design team approach solving real problems utilizing the methods and techniques acquired in the design program. Not for graduate credit.

402-3 Advanced Human Engineering. An extension in depth of 252. Subjects will include selection of design criteria, simulation techniques, and application of theory to selected problem areas. Not for graduate credit. Prerequisite: 252 and 9 hours of 300 level core courses.

403-4 Advanced Systems Theory. An interdisciplinary team approach to the analysis of complex problems using systems theory as the analytical tool. Students from the four areas of design specialty; i.e., visual communication, computer aided design, urban planning, and product design will coordinate their efforts to solve selected problems utilizing their existing skills. Not for graduate credit. Prerequisite: 302.

405-3 Environmental Graphics. An introduction to the theory and practice of designing meaningful symbols for the public environment, including spatial perception and typography as related to signage systems, imagery, symbols, color, and light. Not for graduate credit.

406-3 Exhibition Design. Techniques of exhibition design from two dimensional linear displays to freestanding traveling units. Not for graduate credit.

412-4 Practicum in Product Design. Advanced comprehensive product design projects developed into production prototypes. Not for graduate credit.

413-3 Professional Practice in Product Design. The study of designer/client relationships, business practices, design office procedures, and professional ethics. Not for graduate credit.

422-3 Visual Communication III. Principles of visual message making and investigation of symbols as they are used in communication. Study includes the development of contemporary communication techniques including photographics, topography, color, and illustration as well as learning to identify techniques and processes of communication. Not for graduate credit. Prerequisite: 372.

423-3 Multi-Media Exploration. Experimentation into various forms of electronic and sensory media as a form of visual expression, documentation, and research. Film making, animation techniques, 35mm slide format and VTR will be explored. Not for graduate credit. Prerequisite: 372 and 373.

432-3 Landscape Architecture. Study of the principles of urban and regional landscape architecture and an introduction to the elements of landscape architecture. Site analysis and site planning are studied in relation to structures and large scale developments. Technical aspects of site development are stressed. Not for graduate credit.

433-4 Urban Design III. Continuation of urban design II with emphasis on client interaction. Projects dealing with community groups and advocacy planning needs will be dealt with where appropriate. Not for graduate credit. Prerequisite: 381.

442-4 Principles of Computer Graphics. Contemporary methods, including basic mathematical techniques, for the representation, manipulation, and display of two- and three-dimensional objects. Not for graduate credit. Prerequisite: 392 and Computer Science 202.

450-1 to 6 Internship. Supervised work experience related to student's academic program and career objectives. Not repeatable for credit. Not for graduate credit. Prerequisite: consent of chairperson. Mandatory Pass/Fail.

462-4 Research in Product Design. Not for graduate credit. Prerequisite: consent of chairman, declared specialty in product design.

463-4 Products for Special Populations. Products for special subset groups within greater population norms. May be of cross-cultural and interdisciplinary implementation. Not for graduate credit.

464-4 Environmentally-Integrated Products. Development of products integral to comprehensive environmental planning. Not for graduate credit.

- 465-2 to 4 Independent Study in Product Design.** Creative project developed by student and faculty sponsor and approved by chairman. Not for graduate credit.
- 472-3 Visual Communication IV.** Advanced problems in visual communication, with emphasis on creative research and experimental solutions. The course will allow opportunity to explore various approaches to visual communication problems: combinations of two and three dimensions, film, etc. Not for graduate credit. Prerequisite: 422.
- 485-3 Special Projects in Landscape Architecture.** Special projects framework for advanced undergraduate to do research on a tutorial basis. Not for graduate credit.
- 492-4 Computer Aided Design.** Advanced exploration of computers and the design process. Emphasizes topics in structural, architectural, and planning areas. Not for graduate credit. Prerequisite: 392 and 442.
- 493-4 Advanced Topics in Computer Aided Design.** Applications of computer aided design to design specialties. Course emphasizes interdisciplinary topics. Prerequisite: 442 and 492.
- 495-3 to 9 Seminar in Design.** Special projects in design developed with adjunct and visiting professors and staff. Not for graduate credit.
- 499-3 to 9 Senior Honors Research.** Research projects for senior honors students developed by the student and faculty sponsor and approved by department chairman. Not for graduate credit. Prerequisite: consent of instructor.

Early Childhood Education

(SEE ELEMENTARY EDUCATION)

Earth Science (Minor)

This course of study is designed for the student with an interest in the interdependent dynamic processes that take place on and near the earth's surface. At present the program is structured to complement a major in another discipline. This work may be taken through the College of Liberal Arts, and College of Science, or the College of Education.

A minor in earth science consists of a core program of 15-17 hours and 7 to 9 hours of electives, as follows:

Core Program	15-17
GSA 110, GSA 330 or Geography 331 and Geography 302	
Plant and Soil Science 346 or GSA 312	
Geology 221 or 374, 400	
Electives	7-9
Appropriate substitutions may be made with the approval of the adviser.	
GSA 322, 240	
Geography 310, 432, 432B, 424, 438	
Geology 425	
Plant and Soil Science 240	

Economics (Department, Major, Courses)

The study of economics provides a useful means of analyzing the behavior of consumers, businesses, and government so that the student can better understand many of the problems facing contemporary society. Majoring in economics gives the student an analytical ability and flexibility that is attractive to a wide range of employers in both business and government. Economics is also an excellent major for students who are considering graduate school in law, business, or any of the social sciences.

A student can major in economics in the College of Liberal Arts, the College of Business and Administration, or the College of Education. The economics major in the College of Liberal Arts provides the most flexible program with 36 to 38 hours

of electives. This flexibility allows the student to follow a program oriented toward a wide range of careers in government and business or to prepare for graduate study in any of several areas. The business economics major in the College of Business and Administration emphasizes the use of economic analysis to solve managerial problems and thus provides the student with an excellent background for a variety of positions in business and government. The economics major in the College of Education is offered for students who are planning to teach social sciences at the secondary school level.

Economics courses at the 300 level generally require only a limited background in introductory economics, while many economics courses at the 400 level require Economics 340 (440) and 341 (441) as prerequisites. Students considering graduate study in economics should take Economics 340 and 341 as early in their college careers as possible and should choose several courses at the 400 level to complete their major requirements. A student considering graduate study in economics should also plan to take Mathematics 139 and 140 or 111 and 150 (the latter two courses are better preparation for additional courses in mathematics).

Students are urged to discuss their major programs with the director of undergraduate studies or with any other professor in the Department of Economics; the department also has a director of career information and placement available for consultation.

Bachelor of Arts Degree, College of Liberal Arts

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70)	(4) + 8-14
<i>Requirements for Major in Economics</i>	31
Economics 214, 215, 340, 341, 308	16
Any five remaining economics courses except 301, 490	15
<i>Electives</i>	30-36
<i>Total</i>	120

Bachelor of Science Degree, College of Business and Administration

<i>General Studies Requirements</i>	45-46
<i>Professional Business Core</i> (See page 61)	47-48
<i>Requirements for Major in Business Economics</i>	15-18
Administrative Sciences or Economics 479	3
Economics 315, 340, 341	9
Finance 475	(3) ¹
Two courses from the following list, one of which must be in economics	3-6
Economics 310, 330, 329, 436, 443, 465, 467	
Accounting 341, 365, 405	
Administrative Sciences 345, 352, 361	
Finance 323, 325, 480	
Marketing 335, 341, 390, 495	
<i>Electives</i>	8-13
<i>Total</i>	120

¹Hours shown in parentheses are already included in total of hours shown for professional business core.

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Economics</i>	32
Economics 214, 215, 340, 315 or 341	12

GSD 110	2
Any additional 18 hours in economics excluding 301	18
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	19
<i>Total</i>	120

Minor

For students majoring in other departments, a minor in economics is useful for employment in business or government and for graduate work in any of the social sciences, law, or business. The minor requires 15 hours of work in economics including Economics 214 and 215. Approval of the minor program by the director of undergraduate studies is required in order to assist students in designing coherent programs to meet their individual interests.

Courses

214-3 Introduction to Macroeconomics. Determination of income, employment, output and price levels in the national economy; government taxation, expenditure, and monetary policies to solve problems such as inflation and unemployment. Elective Pass/Fail.

215-3 Introduction to Microeconomics. Study of businesses, consumers and the government and their effects on prices, output and income distribution. Current economic problems will be used as illustrative examples. Elective Pass/Fail.

300-3 to 9 Contemporary Economic Problems. A study of one or more contemporary economic problems. Problems chosen vary from semester to semester and the topic will be announced in advance. Prerequisite: 214, 215 or GSB 211 or consent of instructor. Elective Pass/Fail.

301-1 to 6 Economic Readings. Readings in books and periodicals in a defined field, under direction of one or more faculty members. Periodic written and oral reports. Prerequisite: consent of instructor and department chairman. Elective Pass/Fail.

303-3 Poverty and the Economy. Poverty as a study of income inequality. Economic determinants of income inequality are isolated and related to current policy proposals. Elective Pass/Fail.

304-3 Economics of the Welfare State. Analysis of programs and proposals attacking poverty, insecurity, inequality of opportunity, and maldistribution of income. Analyzes such programs as social security, unemployment compensation, medical care, income maintenance, public assistance, housing, and job creation. Economic foundations and consequences are linked with social and political problems. Elective Pass/Fail.

308-4 Economic and Business Statistics. Survey of the foundations and applications of the principal statistical methods used in economic and business decision making. Included are probability theory, probability distributions, and testing of hypotheses about, and estimation of, the important types of population parameters. Elective Pass/Fail.

310-3 Labor Problems. Covers the basics of the job market with emphasis on the outlook for college trained personnel, the kinds of jobs available in the economy and how people train for them, the composition of the labor force, union-management relations in the private and public sectors and the government's role in the labor market and in union-management relations. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

312-3 Collective Bargaining and Dispute Settlement. An analysis of the economic social effects of collective bargaining with an examination of its legal framework in the private and public sectors. Special attention to issues discussed in bargaining and to procedures for settling disputes. Readings and cases. Prerequisite: 310 or consent of instructor. Elective Pass/Fail.

315-3 Money and Banking I. Study of the operation of the money and banking system in the United States. Stresses Federal Reserve control of the money supply and credit conditions to combat inflation and unemployment. Monetary arrangements and problems among nations are also considered. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.

318-3 Economic History of Europe. The economic growth and development of the European economies from the middle ages to the common market. Topics include the rise of the market system, the development of capitalism and the systematic growth of European economic integration. Prerequisite: 214 or GSB 311 or consent of instructor. Elective Pass/Fail.

320-3 Economic History of the United States. The dynamic process of American economic growth and development from its colonial beginnings to its status as world economic power. Particular emphasis is given to the changing role of the United States in the developing world economy and the contribution of changing economic institutions to the

character and pace of American economic growth. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.

322-3 Introduction to Economic Development. An analysis of the preconditions, processes, and problems involved in economic development. Both the theory and policy relevant to development, with special emphasis on the developing or emerging economies, are stressed. Prerequisite: 214 and 215 or consent of instructor. Elective Pass/Fail.

323-2 Operation of Public Utilities. (Same as Engineering Technology 323.) The study of public utilities regulation, electrical utility, load factors, rates fixed, and operating costs, power plant economics, and distribution policy. Prerequisite: GSB 211 or consent of instructor. Elective Pass/Fail.

329-3 Introduction to International Economics. Introduction to the principles of international economics. Stresses the relationship between the balance of payments and the United States economy, the determinants of deficits and surpluses, and policy options to correct an imbalance. Prerequisite: 214 and 215 or consent of instructor. Elective Pass/Fail.

330-3 Public Finance. Effects of government spending and taxing activities on the rest of the economy. Analysis of government debt, the federal budgetary process, and various taxes used in the United States. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

333-3 Economics of the Environment. Factors which lead to physical and human deterioration in a market economy. Consideration of solutions to such problems as urban decay, overpopulation, and pollution. Prerequisite: 214, 215 or consent of instructor. Elective Pass/Fail.

334-3 Health Economics. Factors underlying the demand for and supply of health and medical care services. Included are the market, voluntary nonprofit, and governmental sectors of the industry. Special topics are the regional coordination of hospital facilities and services, the consumer price index and the measurement of benefits and costs of control programs.

340-3 Intermediate Microeconomics. A survey of theories of household, firm, and government economic behavior in the determination of competitive and non-competitive market prices. Emphasis is on understanding the United States economic system and on evaluating existing and proposed government microeconomic policies designed to improve the system. Not open to students who have had Economics 440. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

341-3 Intermediate Macroeconomics. The determinants of fluctuations in aggregate economic activity, unemployment and inflation. An analysis of the behavior of consumption and investment, the impact of government monetary and fiscal policies, and factors affecting the rate of economic growth. Not open to students who have had Economics 441. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.

350-3 History of Economic Thought. An analytical study of the development of economic ideas, with special reference to historical and societal context, central thrust, and impact. Such benchmark figures as Smith, Marx, Marshall, Veblen, and Keynes are highlighted and major schools of economic thought are identified. Prerequisite: 214 and 215; or GSB 211; or consent of instructor. Elective Pass/Fail.

361-3 Regional and Urban Economics. A survey of regional and urban economic growth and the associated problems, including disparities among regions in income and employment. Examination of governmental policies aimed at reducing or eliminating such problems as depressed areas and urban blight. Prerequisite: 214 or 215 or consent of instructor. Elective Pass/Fail.

375-3 Economics of Antitrust. An economic analysis of government policies intended to limit and/or control the exercise of private monopoly power. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

416-3 Money and Banking II. An examination of the principal institutions whose joint actions determine the supply of money in the United States economy. Emphasis is placed on the commercial bank operating as a firm within the Federal Reserve System. Policy issues are examined for the regulation of the banking industry as well as for the control of the domestic money supply. Prerequisite: 315 or 340 or 341 or consent of instructor. Elective Pass/Fail.

419-3 Latin American Economic Development. Special attention to contemporary policy issues and alternative strategies for development. Among the topics included are inflation and financial reform, international trade and economic integration, foreign investment, and agrarian reform. Prerequisite: 322 or 340 or 341 or consent of instructor. Elective Pass/Fail.

420-3 The History of American Growth in the 20th Century. An analytical survey of American growth in the present century. Concentrates on problems associated with the United States' role as a world economic power and changes in economic institutions engendered by rapid technological change and the need to cope with such problems as income distribution, equity, the growing public sector, inflation, unemployment, and others. Prerequisite: 340 or 341 or consent of instructor. Elective Pass/Fail.

425-4 Economics in Geography and Planning. (Same as Geography 422.) Concepts, symbols, language, theory, elementary mathematics of economics, and geography. Individual's preferences, production functions, the firm, markets optimality, externalities,

and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: Geography 300 or consent of instructor. Elective Pass/Fail.

429-3 International Trade and Finance. Analysis of the pattern and volume of world trade and capital flows; effects of trade and payments on the domestic economy; problems and methods of adjusting to change in the balance of payments. Prerequisite: 340 and 341 or consent of instructor. Elective Pass/Fail.

431-3 Public Finance II. State and local. Analysis of the economic effects, problems, and alternative solutions concerning state and local government expenditures, revenues, and debt. Prerequisite: 330 or consent of instructor. Elective Pass/Fail.

436-3 Government and Labor. (Same as Political Science 428.) Influence of government and law on collective bargaining, on the internal operation of unions, and on job discrimination in the public and private sectors. Prerequisite: GSB 211 and 212 or equivalents or consent of instructor. Elective Pass/Fail.

440-3 Price, Output, and Allocation Theories. A systematic survey of theories of product prices, wage rates, rates of production and resource utilization under conditions of competition, monopolistic competition, oligopoly and monopoly markets. Emphasis is on developing analytical tools useful in the social sciences. Not open to students who have had Economics 340. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

441-3 Contemporary Macroeconomic Theory. An examination in the causes of inflation, unemployment, and fluctuations in aggregate economic activity, factors affecting consumption and investment, and the sources of economic growth. Emphasis is on understanding contemporary United States macroeconomic problems and the options for fiscal, monetary, and incomes policies facing the United States government. Not open to students who have had 341. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.

442-3 Monopoly and Competition in the Industrial State. A survey of economic theories and empirical studies on the nature and consequences of business rivalry in imperfectly competitive markets. Prerequisite: 340 or 440 or consent of instructor. Elective Pass/Fail.

443-3 Senior Seminar in Economics and Problems and Policy. Application of the tools of economic analysis to the study of contemporary social problems. Economics graduate students not permitted to enroll in this course. Prerequisite: 440 and 441; or 340 and 341; senior standing. Elective Pass/Fail.

465-3 Mathematical Economics I. A systematic survey of mathematical economics. Application of basic mathematical tools to economic analysis, and a restatement of economic theory in mathematical terms. Prerequisite: 340 to 440, and Mathematics 117 or 140, or consent of instructor. Elective Pass/Fail.

467-3 Introduction to Econometrics. Introduction to the use of statistical inference and distribution theory for measuring and testing economic theory. Emphasis placed on the linear model, least square estimation, hypothesis testing, and the underlying assumptions. Prerequisite: 308 or consent of instructor. Elective Pass/Fail.

471-3 Land Resource Economics. (See Agricultural Industries 440.) Elective Pass/Fail.

479-3 Problems in Business and Economics. (Same as Administrative Sciences 479.) Application of economic theory and tools of analysis to practical business problems. Cost and demand functions, and forecasting are analyzed from a policy standpoint. Prerequisite: 215; 308 or Administrative Sciences 208; Marketing 304. Elective Pass/Fail.

481-3 Comparative Economic Systems. Capitalism, socialism, communism, and other forms of social organization are examined from a theoretical point of view. Economic and social theories from Adam Smith and Karl Marx to Milton Friedman and Paul Sweezy will be examined. Prerequisite: 340 or 440 or consent of instructor. Elective Pass/Fail.

490-3 Workshop in Economic Education. (Same as Secondary Education 490.) Designed to assist elementary and secondary school teachers in promoting economic understanding in the minds of their students through the translation of economic principles and problems into classroom teaching materials. Elective Pass/Fail.

500-3 to 24 (3 per topic) Economics Seminar.

501-1 to 21 Economics Readings.

502-1 to 4 Readings in Resource Economics

505-1 to 8 Political Economy Seminar.

507-1 to 4 (1, 1, 1, 1) Practicum in Undergraduate Teaching.

510-2 Research in Economics: Design, Methodology, and Presentation.

512-3 Seminar in Labor Institutions.

517-3 Monetary Theory and Policy.

518-3 Monetary Theory and Policy II.

520-6 (3, 3) Economic Development Theory and Policy.

522-3 Microeconomic Foundations of Labor Markets.

525-4 Economics in Geography and Planning II.

526-3 Managerial Economics.

530-3 Foreign Trade.

531-3 International Finance.

532-3 Economics of Human Resources.

533-3 Public Finance Theory and Practice.

- 538-3 Advanced Price, Output, and Allocation Theories.
- 540-8 (4, 4) Microeconomic Theory I and II.
- 541-6 (3, 3) Macroeconomic Theory I and II.
- 552-3 Seminar in Economic Thought.
- 555-3 Seminar in Economic History.
- 562-3 Seminar in Economic Systems.
- 565-3 Applied Econometric Analysis.
- 566-3 Mathematical Economics II.
- 567-6 (3, 3) Econometrics I and II.
- 570-3 Seminar in Contemporary Microeconomic Theory.
- 571-3 Seminar in Contemporary Macroeconomic Theory.
- 575-3 Microeconomic Regulation.
- 583-3 Methodological Foundations of Economics.
- 585-3 Seminar in Social Economy.
- 590-1 to 8 (1 per semester) Seminar in Contemporary Economics.
- 599-1 to 6 Thesis.
- 600-1 to 36 (1 to 16 per semester) Doctoral Dissertation.

Education (Courses)

Courses

- 200-1 to 10 Experimental Education.** Offered the purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.
- 201-1 The Teacher's Role in Public School Education.** Designed to assist students in confirming their thinking concerning the desirability of pursuing a career in teaching. A requirement in the Professional Education Sequence, this course is available at the freshman level and is prerequisite to admission to the Teacher Education Program. Two-day long observation field trips to elementary and secondary schools are required during the semester in which 201 is completed. Mandatory Pass/Fail.
- 300-1 to 10 Experimental Education.** Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.
- 301-2 Human Growth, Development, and Learning.** A requirement in the Professional Education Sequence. Deals with factors involved in the teaching-learning process including: cognitive development, socio-personal characteristics, socio-cultural characteristics, motivation for learning, and principles of school learning. Prerequisite: GSB 202 or equivalent, admission to the Teacher Education Program.
- 302-2 Basic Techniques and Procedures in Instruction.** A requirement in the Professional Education Sequence. Techniques and procedures applicable to effective teaching including the topics: planning for instruction, strategies for instruction, assessment and evaluation, and classroom management. During the semester when enrolled in 302, each student is required to spend one-half day per week doing observation and participation activities in public schools or other appropriate settings. Prerequisite: admission to the Teacher Education Program.
- 303-2 School and Society: Historical, Sociological, and Philosophical Perspectives.** A requirement in the Professional Education Sequence. Fulfills the minimum State Certification requirement in the history and/or philosophy of education. Assists students in developing and understanding of the organization, function, and role of schools in the United States. Prerequisite: admission to the Teacher Education Program.
- 304-2 to 16 (2, 2, 2, 2, 2, 2, 2, 2) Individualization in Professional Education.** A series of courses dealing with various aspects of professional education. One course must be selected as part of the Professional Education Sequence requirement. (a) Audiovisual Methods in Education. Selection and utilization of audiovisual materials in the learning environment, elementary through secondary level. Audiovisual machine laboratory is required. (b) Career Education. Principles and practices of career education K-adult. Classroom, study, and field experiences. Understanding administration and curricular organizations at various levels and in various agencies. Field trip fee \$10.00 (c) Evaluation in the Classroom. Construction and use of evaluation instruments intended to assess learning especially in the public school settings. (d) Teaching in the Middle and Junior High School. The role of the middle and junior high school in the present school structure. A focus on the curriculum, learning, and instruction patterns unique to this area. (e) Teaching the Special Needs Learner. Emphasizes an understanding of special needs learners (e.g., educationally disadvantaged youth) and the development of strategies which are effective in teaching them. (f) Teaching and Affective Education. The affective domain of educational objectives. Emphasis given to a theory of values and strategies for the clarification of values; the process of valuing as an operation of

teaching. (g) Discipline and Classroom Management. Techniques and procedures intended to provide teachers with skills for managing groups of students. Content includes group dynamics and leadership skills. (h) Extra-Curricular Activities in the Junior High and Senior High School. An overview of the extra-curricular activity program in secondary schools, focusing on the various types of activities, the role of the teacher as sponsor, adviser or coach, and the function of the activity program as a part of the total curriculum of the school. Prerequisite: admission to the Teacher Education Program.

312-1 to 8 Field Observation and Participation. Allows the pre-service teacher education student to observe and participate in activities and experiences relating to the offerings of their major department. These experiences will be correlated with the offerings of the student's major department, and the experiences will be designed to meet the needs of the individual student. Enrollment in this course will be coordinated by the student's major department. Placement in public school settings will be coordinated by the Office of Professional Education Experiences. Prerequisite: 301, 302, 303, or concurrent enrollment.

350-3 Seminars in Professional Education. A requirement in the Professional Education Sequence. Concentrates on situations, events, and issues that frequently arise in public school work. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 400 and 401. Mandatory Pass/Fail.

400-4 Student Teaching. A requirement in the undergraduate Professional Education Sequence, 400 represents preliminary student teaching experiences necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Professional Education Experiences. For undergraduate credit only. Students majoring in special education and seeking entitlement to more than one teaching certificate in the State of Illinois may in certain instances be allowed credit for up to 8 semester hours of Education 400. Such increase in hours shall be contingent on the student enrolling in 4 hours of Education 400 in each of two two semesters, and shall require the written permission of the coordinator of professional education experiences. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 401.

401-8 Student Teaching. A requirement in the undergraduate Professional Education Sequence, 401 concludes the student teaching experience necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Professional Education Experiences. For undergraduate credit only. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 400.

450-1 to 10 Experimental Education. Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.

550-1 to 10 Experimental Education.

590-4 Doctoral Seminar in Cultural Foundations of Education.

591-4 Doctoral Seminar in Behavioral Foundations of Education.

Educational Leadership

(Department, Major [Graduate only], Courses)

The Department of Educational Leadership does not offer an undergraduate major but offers courses for undergraduate credit over a broad range of subject matter in cultural and legal foundations of education.

Courses

354-3 Philosophy of Education. (Same as Philosophy 355.) Intended primarily for those interested in education as a profession. Schools of philosophy are reviewed as they relate to education, and students are encouraged to develop and apply philosophic thought to the practices and problems of education.

360-3 Subcultures in American Education. Poverty, racial prejudice, and various sub-cultural issues as may relate to American educational development. Analysis of conflicting systems of cultural values and norms and their implications.

421-3 The Law, The Teacher, and The Student. Legislative and case law including civil rights and responsibilities for the teacher and for the student.

430-3 History of Education in the United States. An historical study of the problems of American education.

431-3 Workshop in Adult and Community Education. The focus for this workshop is to provide quality in-service education for practitioners in the field of adult and community education with a variety of specialties.

432-3 Education and Social Forces. A study of the social forces that shape educational policies in the United States.

- 454-3 Contrasting Philosophies of Education.** An examination of current educational problems and trends in the light of contrasting philosophies of education.
- 465-3 Organization and Administration of Adult and Community Education Programs.** Review of methods and procedures for working with various types of adult programs and populations, for administering adult curricula programs and staff for using area and state social services, and for program funding are the primary emphases of this course.
- 500-3 Educational Research Methods.**
- 501-3 Educational Administration: Tasks and Processes.**
- 503-3 Educational Administration: Introduction to Theory.**
- 505-2 Organization and Administration of the Middle and Junior High School.**
- 507-3 Secondary School Principalship.**
- 509-3 School-Community Relations and Development.**
- 510-3 Cultural Foundations of Adult Education.**
- 511-3 Organization and Administration of Curriculum.**
- 513-3 Supervision of Instruction.**
- 515-1 to 12 Current Issues in Educational Administration.**
- 517-3 The Legal Framework of Education.**
- 519-3 Illinois School Law.**
- 521-3 School Facilities.**
- 523-3 Systems Analysis: An Application to Education.**
- 525-3 School Finance Theory.**
- 527-3 School Business Administration.**
- 529-3 Supervision of Personnel: Problems.**
- 530-3 Historical Research in Education.**
- 531-3 School Boards and Policies.**
- 533-3 Elementary School Principalship.**
- 539-3 Evaluation and Accreditation in Public Schools.**
- 541-3 Personnel Evaluation.**
- 551-3 Educational Leadership: Politics of Education**
- 552-3 Seminar in Comparative Education.**
- 553-3 Educational Leadership: Systems and Accountability.**
- 554-3 Seminar in Philosophy of Education.**
- 555-3 Advanced Educational Administration Theory.**
- 556-3 Seminar in History of European Education.**
- 558-3 to 9 (3, 3, 3) Advanced Seminar in Comparative Education.**
- 559-3 Interdisciplinary Seminar in Educational Administration: I.**
- 560-3 Education and Culture.**
- 561-3 Interdisciplinary Seminar in Educational Administration: II.**
- 562-3 Education and the American Way of Life.**
- 564-3 Education and the Challenges of the Twentieth Century.**
- 588-3 to 9 General Graduate Seminar.**
- 590-1 to 6 Readings in Administration and Foundations.**
- 593-1 to 3 per topic Individual Research.**
- 595-1 to 8 Internships in Educational Administration.**
- 596-1 to 6 Independent Investigation.**
- 597-1 to 8 Externship.**
- 599-1 to 6 Thesis.**
- 600-1 to 36 (1 to 16 per semester) Dissertation.**

Educational Media

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

Electrical Sciences and System Engineering

(SEE ENGINEERING)

Electronic Data Processing (Program, Major, Courses)

The growth of electronic data processing in both the expansion of installations and in the complexity of hardware and software has increased the need for competent

computer programmers and systems analysts. The need for persons trained only on unit record equipment, however, is decreasing.

The curriculum in electronic data processing at the School of Technical Careers prepares students for employment as business computer programmers and systems analysts. Skills which the graduate obtains include competency in programming languages (such as COBOL, Assembler, and RPG) and associated areas such as accounting and systems design and development.

An outstanding feature of the program at the School of Technical Careers is the availability of an IBM 370 computer system for batch and interactive use. The hardware and software configuration is representative of large computer installations in industry. The data center is accessible for approximately 100 hours per week.

The student should plan to spend small amounts for special laboratory materials.

An advisory committee of professional people and educators helps to keep the program responsive to needs in the field. Current members are: Ellis T. Bick, division data systems manager, Southwestern Bell Telephone Company, St. Louis, Mo.; George R. Eggert, chief of office and management, DCASR Chicago Department of Defnese, O'Hare International Airport, Chicago; Robert Olson, executive assistant, department of management services, Office of the Secretary of State, Springfield; and Thomas Purcell, institutional research, Southern Illinois University at Carbondale, Carbondale.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Electronic Data Processing

GSB 212	4
GSD 101, 153	6
Accounting 110, 120	6
School of Technical Careers 102, 104	4
Electronic Data Processing 101a,b, 104, 201a,b, 203, 204a,b, 205, 206, 207, 235	50
Electives	6
<hr/>	
Total	76

Courses

- 101-8 (2, 6) Introduction to Data Processing.** The successful student will from (a) demonstrate an understanding of basic terminology, procedures, applications, and equipment used in data processing and be able to compare manual, punched card, and electronic methods; from (b) flowchart logical solutions and write programs for business data processing problems using a high-level language, and describe the general features and usage of several different programming languages. (a) Lecture two hours. (b) Lecture three hours. Laboratory five hours.
- 104-3 Data Processing Applications.** The successful student will demonstrate by examination a general knowledge of processing procedures and terminology for basic business applications such as billing, accounts receivable, accounts payable, inventory control and payroll. Lecture three hours. Prerequisite: 101.
- 107-3 Electronic Data Processing Concepts.** Designed as a concepts course for non-data processing majors. Each student will learn the basic operation and functions of data processing equipment, be able to flow chart logical solutions, write a program for a simple data processing problem, describe the use of several different programming languages, and discuss the impact of computers on our socio-economic system. Averages two lecture and three laboratory hours per week. Elective Pass/Fail.
- 109-2 Punched Card Preparation.** Designed as a skill course for non-data processing majors. Each student will learn the basic operation and function of IBM unit record machines, memorize the keyboard and design program cards for the IBM 26 and 29 model key punches. Most laboratory time will be spent in improving speed and accuracy of alphameric punching. Averages one lecture and three laboratory hours per week. Prerequisite: typing skills.

201-8 (4, 4) Assembler Language Programming. The successful student will demonstrate a working knowledge of Assembler Language by flow charting, coding, compiling and testing (a) simple problems using card/prINTER input-output and decimal arithmetic, and (b) complex problems using disk/tape input-output, fixed point arithmetic and indexing. Averages four lecture and six laboratory hours per week. Prerequisite: 101.

202-3 FORTRAN IV Programming. The successful student will demonstrate a working knowledge of the FORTRAN IV programming language by flow charting, coding, compiling and testing a variety of mathematical and statistical problems. Lecture two hours. Laboratory three hours. Prerequisite: Mathematics 111 or consent of instructor.

203-5 Job Control Language and Utilities. The successful student will utilize the computer to demonstrate skills using JCL for applications such as utilities, sorts, merges and multi-programming operations. Lecture three hours. Laboratory three hours. Prerequisite: 201 or 204.

204-8 (4, 4) COBOL Programming. The successful student will demonstrate a working knowledge of programming language by flow charting, coding, compiling and testing (a) simple problems using sequential card, disk, and tape files with fixed length records, and (b) complex problems using ISAM and direct organization files, variable length records and subprograms. Averages four lecture and six laboratory hours per week. Prerequisite: 101.

205-3 Systems Design and Development. The successful student will demonstrate in class discussion, on examinations and by preparing a case study, an ability to design an effective business information processing system including the system flow chart, system specifications, feasibility, the implementation procedure and essential documentation. Lecture three hours. Prerequisite: 104.

206-7 RPG Programming. The successful student will be able to prepare a variety of reports from several established data files using the REPORT PROGRAM GENERATOR of the IBM 360/40 DOS System. Some reports will involve calculations and use data from both tape and disk files. Averages three lecture and six laboratory hours per week. Prerequisite: 101.

207-6 Data Processing Project. Designed to provide the student with a data processing problem which is beyond the scope of any single course. Prerequisite: consent of department.

208-8 (4, 4) Numerical Control Programming. The student will be able to (a) operate basic data processing machines; plan, code test and debug an elementary FORTRAN IV program; plan, code, test and prove an elementary AD-APT part program, and (b) describe the environment in which the AD-APT system resides and become proficient in using the AD-APT part part programming language. Lecture two hours. Laboratory three hours. Prerequisite: Tool and Manufacturing Technology 210.

209-1 to 8 Data Processing Internship. Designed to provide the students with meaningful practical experience. Involves study, observation, and participation in a data processing installation. Hours and credit arranged individually. May be repeated for credit up to eight hours total. Prerequisite: consent of department. Mandatory Pass/Fail.

217-3 Computing for Business Administration. Designed for business oriented students who need to know how computer systems may be used as management tools. Topics include: types of hardware and software, information systems design and management, and an introduction to FORTRAN programming. A successful student will be able to write programs in FORTRAN to analyze management information. Lecture three hours. Prerequisite: completion of the General Studies mathematics requirement or equivalent.

235-2 Business Statistics. The student will present data in tabular form and draw graphic representations of data; compute measures of central tendency, and solve problems dealing with measures of dispersion and skewness; do basic probability computation; deal with sampling distributions; and solve problems dealing with regression and correlation analysis. Lecture two hours. Prerequisite: Accounting 110 or consent of instructor.

Electronics Technology (Program, Major, Courses)

The goal of the electronics technology program is to educate electronics technicians capable of taking their places in industry in both indirect and direct support to the electronics engineer. Experiences in meter measurements and troubleshooting are provided with manuals and specifications to allow the indirect supporting technician to work for a senior technician. More than an hour each day is spent descriptively and mathematically presenting the general theory principles of electronics. This theory is then applied in a two-hour laboratory each day to design, bread-board, and evaluate circuitry to not only reinforce the theory knowledge but to prepare the direct supporting technician for work later directly for an engineer. During the early stages of the program, most instruction is directed toward basic

principles of electricity and electronics. This is followed by communication systems, digital circuits, instrumentation, and control system.

The persons who make the best electronics technicians are those who are interested in physics and mathematics, who have a desire to learn how complex equipment functions and are careful of small details, and who enjoy using their own heads to seek out and solve problems.

The purchase of a set of specified hand tools, costing approximately \$125, is mandatory for students enrolled in the program. A list of the specific hand tools and supplies required will be sent upon request.

An advisory committee drawn from among professionals active in the industry helps to assure that students get a course of study that will prepare them for existing and developing conditions in the field. Current members are: Richard W. Burritt, education and training, Caterpillar Tractor Company, East Peoria; John Cappellin, General Tire Company, Mt. Vernon; Hugh Plant, Phelps-Dodge, Du-Quoin; and George Watson, Monsanto Company, William G. Krummrich Plant, Sauget.

Opportunities exist throughout industry for technicians, and students are limited only by their own talent and motivation. Job pay is directly commensurate with the technician's ability, resourcefulness, and drive.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Electronics Technology

GSD 101	3
School of Technical Careers 102, 105a,b, 107a,b, 118, and 101 or 153a	14
Electronics Technology 101, 102, 111, 112, 121, 122, 201, 202, 211, 212, 221, and 223 or 224	56
Total	73

Courses

- 101-5 DC-AC Circuit Analysis.** The laws and theory principles of DC-AC passive circuits are presented in a descriptive and mathematical analytical manner. Lecture five hours. Prerequisite: concurrent enrollment in School of Technical Careers 105a,b.
- 102-5 Electronics Circuit Theory.** The operation of active devices with their passive components are descriptively and mathematically presented in circuits and systems such as simplifiers, oscillators, power supplies, transmitters and receivers. Lecture five hours. Prerequisite: 101.
- 111-6 DC-AC Circuit Analysis Laboratory.** Application of the theory studies in 101 on passive circuits is made under experimental conditions. Laboratory ten hours. Prerequisite: concurrent enrollment in 101.
- 112-6 Electronics Circuits Laboratory.** Application of the theory studies in 102 on electronic circuits is made under experimental conditions. Laboratory ten hours. Prerequisite: 111, and concurrent enrollment in 102.
- 121-3 Electronic Devices.** The focus is placed on electronic devices, their construction, operational characteristics, and application in a single functional block according to manufacturer specifications, Lecture three hours. Prerequisite: concurrent enrollment in 111.
- 122-3 Propagation and Coupling.** Propagation theory, transmission of energy, coupling systems and antenna theory. Lecture three hours. Prerequisite: 101.
- 201-1 to 5 Telemetry and Industrial Circuits Theory.** The theory principles are covered on circuitry employed in the measurement, transmission resolution, and development of data required for operation in industrial and commercial applications. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.
- 202-1 to 5 Digital Circuits Theory.** Concepts of the circuits used to make up such systems as numeric controls, computers, and communications networks. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.
- 211-6 Telemetry and Industrial Circuits Laboratory.** Application of the theory studied

in 201. It develops skills in design, testing, and troubleshooting pulse circuits, microwave equipment, and industrial circuits. Laboratory ten hours. Prerequisite: 102.

212-1 to 6 (Digital Circuits Laboratory). The laboratory provides organized investigation of individual circuits and subsystems that are employed in a variety of major systems in industry and commerce. Laboratory ten hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.

221-3 Electronic Systems Analysis. Electronic systems analysis of FM and TV are covered as complete systems. Emphasis is placed on modulation, demodulation, and synchronization. Lecture three hours. Prerequisite: 102.

223-3 Federal Communications Commission Test Preparation. Programmed instruction designed to prepare a student for the test for the second class FCC radio-telephone license. Individualized instruction three hours. Prerequisite: 102.

224-3 Computer Systems Application. Analysis of the computer's operational blocks, machine language programming, and troubleshooting are done on the Digiac 3060 computer. Lecture three hours. Prerequisite: 201 and concurrent enrollment in 202.

250-2 Controls, Motors, and Generators. Upon completion of this course students will be able to choose the proper contactors and fuses for a given job. They will be able to read meters and apply Ohm's law to the DC motor-generator, series, parallel and combination circuits with the proper wire sizes. This course is designed for non-majors and is learner paced. Elective Pass/Fail.

251-3 Advanced Solid State Devices. Knowledge of diodes, transistors, silicon controlled rectifiers, triacs, diacs, tunnel diodes, and integrated circuits will be discussed in detail. Specific emphasis will be given to the theory of linear integrated circuits and the operational amplifier and its application in instrumentation. This course is learner-paced. Prerequisite: 250. Elective Pass/Fail.

252-2 Amplifiers, Power Supplies, and Transducers. Upon completion of this course, students will be able to measure an amplifier's gain, frequency response, input and output impedance. They will be able to measure a power supply's efficiency, ripple and regulation and properly apply a new power supply to a given load. They will be able to analyze an amplifier to properly apply input transducers (microphones, phonopickups, etc.) and output transducers (speakers, meters, etc.) This course is designed for non-majors and is learner paced. Prerequisite: 251. Elective Pass/Fail.

301-1 to 5 Introduction to Electronic Biomedical Instrumentation. Designed to develop an understanding of the fundamentals of electronic circuits employed in biomedical instrumentation of the following purposes: cardiovascular measurements, patient care and monitoring, measurements in the respiratory system, measurement of physical variables, sensory measurements for the study of behavior, biotelemetry, instrumentation for the clinical laboratory, X-ray and radioisotope instrumentation, and particularly electrical safety for medical equipment. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: consent of instructor

311-1 to 6 Electronic Biomedical Instrumentation Laboratory. The laboratory is designed to provide hands-on experience with the equipment currently available for use in biomedical instrumentation. The equipment is selected from the major supplies and will be utilized to teach interfacing and applications. The equipment will encompass sensors, transducers, amplifiers, oscillators, display and recording devices. Complete systems approach will be taught in conjunction with the medical school laboratories on existing equipment. Laboratory ten hours. Hours and credit to be individually arranged. Prerequisite: consent of instructor.

Elementary Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

Engineering (Major, Courses)

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize economically the materials and forces of nature for the benefit of mankind.

The four-year undergraduate program leading to the Bachelor of Science Degree in engineering is a modern, flexible curriculum fully accredited by the Engineer's Council for Professional Development (ECPD), the recognized agency for accredi-

ing engineering curricula in the United States. Graduating seniors with a major in engineering are eligible to take the Engineer-In-Training (EIT) examination as a first step toward registration as a Professional Engineer (PE).

The program of study consists of a common core and an elective option. The common core consists of courses in basic sciences, mathematics, engineering science, and engineering design. Sometime before the senior year, the student selects the option which contains required and elective courses in an area of interest. Fully accredited by ECPD, the options are:

Electrical Science and Systems Engineering

Engineering Mechanics and Materials

Thermal and Environmental Engineering

Judicious selection of elective courses allows the student to prepare for a variety of areas (see individual curricula) identified with the traditional engineering disciplines (electrical, mechanical, civil, etc.) and other areas that transcend the traditional disciplines. The aim of this flexibility is to provide society with graduates who can cope with a variety of engineering activities such as design, development, testing, consulting, and applied research. These activities may be directed toward the solution of contemporary problems varying from design of devices to problems of an interdisciplinary or complex-systems nature.

Students enrolled in community colleges who plan to transfer to Southern Illinois University at Carbondale should take courses that provide backgrounds in mathematics, physical sciences, social sciences, and humanities. They may transfer at any time, but there are advantages in having completed a baccalaureate-oriented associate-degree program. Community college students can complete specific Southern Illinois University at Carbondale course requirements which include 5 hours of English composition and speech, 8 hours of university physics, 7 hours of chemistry, 11 to 14 hours of mathematics (including calculus), 5 hours of statics and dynamics, and 16 hours of social sciences and humanities. Calculus and analytical mechanics are prerequisites for most junior-level engineering courses.

Students with bachelor of science degrees in engineering can specialize further at the graduate level.

Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required for all engineering students.

100-3 Introduction to Engineering. Introduction to the exciting and challenging experience of engineering. Methods and procedures utilized by the engineer for problem solving are discussed. Each student will be involved in an authentic engineering design project. A graphics and computational tools laboratory will be part of the course.

200-2 Conservation of Mass and Energy. Introduction to engineered systems. Units, dimensional analysis and process specifications. First law of thermodynamics. Mass and energy balances applied to chemical and thermal systems. Prerequisite: Mathematics 150 and Chemistry 224.

222-2 Computational Methods for Engineers and Technologists. Introduces the student to the use of digital computers and programmable calculators in the solution of technical problems. A problem-oriented computer language is used to solve relevant problems that are specifically designed for the engineering and technology student. Problem analysis, flow charting, coding, diagnostics, execution, and solution verification are discussed. Prerequisite: Mathematics 111. Elective Pass/Fail.

260-5 (2, 3) Mechanics of Rigid Bodies. (a) Principles of statics; force systems; equilibrium of particles and rigid bodies; trusses, frames and machines, centroids; friction; moments of inertia of areas. Prerequisite: Mathematics 150. (b) Principles of dynamics; mass moment of inertia; kinematics and kinetics of particles and rigid bodies; vibrations. Prerequisite: 260a or equivalent.

300-3 Engineering Thermodynamics. Study of the basic laws of thermodynamics and introduction to engineering applications. Thermodynamic properties for ideal and real substances. Use of properties in analysis of processes and cycles. Utilization of equilibrium criteria. Prerequisite: 200.

302-3 Engineering Heat Transfer. An introductory study of the rate mechanisms of thermal energy transport both in steady state and in transient conditions, with and without phase change. Prerequisite: 200, 222; Mathematics 305 or concurrent enrollment.

311-3 Mechanics of Deformable Bodies. Introduction to the mechanics of deformable bodies. Forces and deformations. Torsion. Stresses in beams. Deflections of beams. Statically indeterminate beams. Columns. Laboratory. Prerequisite: 260a.

312-3 Materials Science Fundamentals. Sub-microscopic structure of solids, including electronic states, atomic and molecular arrangement, structural imperfections and atomic diffusion, and their relationship to macroscopic properties; physical properties of semiconductors, dielectric and magnetic properties of materials; metallic, organic, and ceramic materials and their mechanical properties; composite materials. Prerequisite: Physics 205 and Mathematics 250.

313-3 Fluid Mechanics. A broad introduction to the concepts and principles of fluid statics, kinematics, and dynamics. The fundamental laws for fluid motion in the form of Euler's, Bernoulli's, impulse-momentum and work-energy equations. Dimensional analysis and dynamic similitude. Resistance to flow: deformation drag, surface drag, form drag. Introduction to compressible fluid flow. Laboratory. Prerequisite: 260b or concurrent enrollment.

335-3 Electric Circuits. Foundation course in electric circuits. Basic laws and concepts of linear circuits. Analysis of AC and DC circuits by mesh and nodal methods, Thevenin's and Norton's theorems, superposition principle, and phasor notation. Transients. Prerequisite: Mathematics 250. Elective Pass/Fail.

345-3 Electronics. Functional electronics and basic signal processing. Characteristics and typical applications of analog and digital electronic modules. Operational amplifiers. Fundamentals of transistors. Use of basic instruments. Lecture and laboratory. Prerequisite: 335. Elective Pass/Fail.

361-2 Engineering Economics in Design. Procedures for evaluating the relative economic merits of engineering projects and designs. These procedures compare alternate engineering estimates, evaluate engineering effectiveness, and proceed toward decision making based on economic and engineering optimization. Course materials are present in professional engineering examinations. Prerequisite: Mathematics 111 or equivalent.

385-3 Electromechanical Energy Conversion. Principles of electromechanical energy-conversion and related circuitry. Magnetic circuits. Transformers. DC machines. Single-phase and polyphase machines. Polyphase circuits. Prerequisite: 335. Elective Pass/Fail.

443-4 Engineering Design. Projects of an engineering systems design nature. Students select a problem, define and design the various subsystems, define subsystem interface requirements, integrate the subsystems into the final design and document the design effort. Laboratory. Not for graduate credit in engineering. Prerequisite: senior standing in engineering.

455-3 Engineering Geology. (See Geology 455.)

ELECTRICAL SCIENCES AND SYSTEMS ENGINEERING

(Department, Major [Engineering], Courses)

Students who choose the electrical sciences and systems engineering option prepare themselves for professional employment or graduate studies in areas associated with electrical or systems engineering. Employment opportunities exist within a wide range of organizations, such as governmental laboratories; consumer-goods manufacturers; and telecommunications, electric-power, computer, and microelectronic companies. Flexibility in this option allows students to choose among courses in applications and theory of circuits, systems, communications, digital systems, controls, electronics, instrumentation, electromagnetics, and power systems.

Bachelor of Science Degree, School of Engineering and Technology

ENGINEERING MAJOR—ELECTRICAL SCIENCES AND SYSTEMS ENGINEERING SPECIALIZATION

<i>General Studies Requirements</i>	29 ¹
GSA: Substitute basic sciences	
GSA	9
GSC	9
GSD: Substitute mathematics	7
GSE	4

Requirements for a Major in Engineering 103

 Basic Sciences 18²

 Physics 205a, b; 255a, b 8

 Chemistry 224 and 225 7

 GSA 110 or 115 or 209, or substitute Geology 220 3

 Mathematics 150, 250, 251, 305 and approved elective-3 17

 Engineering (Core): 100, 200, 222, 260a, b, 300, 302, 311, 312, 313, 335, 345, 361, 385, 443 42

 Specialization in Electrical Sciences and Systems Engineering 26

 ESSE (core) 455 and 465; Select one from 447, 476, 477, or 486; Select two from 427, 446, 456, 457, or 487 14-16

 Approved technical electives 10-12

Total 132

¹Courses required for the major will apply toward 16 hours of General Studies making a total of 45 in that area.

²Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairman or a designate, meet this requirement.

Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required of all electrical sciences and systems engineering students.

421-2 Digital Computers in Applied Physical Research. Computational techniques for matrix inversion, solution of linear equations, and characteristic roots and vectors. Least squares analysis, curve-fitting, and regression. Numerical quadrature. Solution of nonlinear equations. Solution of regular differential equations and boundary-value problems. Generation of approximate solutions. Monte Carlo techniques. Engineering and other physical examples are used as the primary teaching vehicle. Prerequisite: Engineering 222 and Mathematics 305. Elective Pass/Fail.

426-3 Hybrid Computation. Use of analog and digital computers for solution of engineering problems. Comparison between analog and digital problem-solving techniques. Hybrid simulation of engineering systems. Prerequisite: Engineering 222 and Mathematics 305, or consent of instructor. Elective Pass/Fail.

427-3 Digital-Systems Design I. Concepts of digital systems. Relation of Boolean algebra to switching circuits. Combinational logic circuit implementation. Minimization of combinational functions by algebraic techniques, Karnaugh mapping, and tabular methods. Sequential systems. Basic design methods for synchronous systems. Prerequisite: Engineering 345 or senior standing. Elective Pass/Fail.

446-4 Electronic Circuit Design. Design techniques for a wide range of electronic circuits. Device and circuit modeling. Computer aided circuit design. Consideration of audio, video, and tuned amplifiers; feedback; oscillators; digital circuits. Design project. Lecture and laboratory. Prerequisite: 455 or concurrent enrollment. Elective Pass/Fail.

447-2 Applications of Modern Electronic Devices. Physical mechanisms governing fabrication and operation of transistor, charge-transfer, photosensitive, display, and Hall-effect devices. Techniques of fabrication of integrated circuits and hybrid microelectronics. Device design. Prerequisite: Engineering 312 and 345. Elective Pass/Fail.

455-3 Linear Systems. Fundamental techniques in analysis of linear systems. Transient analysis of linear electrical networks and analogous systems by classical, Laplace-transform, and computer techniques. Feedback, frequency response, and state variables. Prerequisite: Engineering 335 and Mathematics 305. Elective Pass/Fail.

456-3 Control Theory. Fundamentals and techniques for analysis and design of systems with feedback. Signal flow graphs. S-plane analysis. Frequency-domain analysis. Root locus. Stability conditions. Compensation techniques. Prerequisite: 455. Elective Pass/Fail.

457-3 Systems Theory. In-depth study of system concepts such as interaction, anticipation, feedback, feedforward, stability, and memory. Methods which maintain flexibility and generality in dealing with all types of engineering systems. Prerequisite: Mathematics 305 or consent of instructor. Elective Pass/Fail.

458-3 Communications Theory. Basic information theory. Fourier series and transform. Sampling theory. Amplitude modulation, frequency modulation, and pulse modulation. Signal-to-noise ratio. Statistical methods. Prerequisite: 455. Elective Pass/Fail.

461-4 Bio-electricity and Biomedical Instrumentation. Interdisciplinary course primarily for life-science students. Electromagnetics relative to living systems. Circuit analysis. Functional electronics. Electric safety. Specific clinical and research instrumentation. Lecture and laboratory. Elective Pass/Fail.

- 465-3 Instrumentation.** Theory and practice related to measurement systems for research and industry. Instrument characteristics. Techniques in analog and digital instrumentation. Transducers. Signal conditioners. Output and display systems. Statistics of measurement. Design project. Lecture and laboratory. Prerequisite: Engineering 345. Elective Pass/Fail.
- 476-3 Electromagnetic Fields I.** Electric and magnetic fields using vector analysis. Evolution of Maxwell's equations through the laws of Coulomb, Gauss, Ampere, and Faraday. Concepts of energy and potential. Poisson and Laplace fields. Wave equation and plane waves. Transmission lines. Prerequisite: Mathematics 305. Elective Pass/Fail.
- 477-3 Electromagnetic Fields II and Microwaves.** Application of Maxwell's equations and the laws of electromagnetics to boundary-value problems, microwave devices, guiding structures, and radiating structures. Poynting's theorem and energy relationships. Lecture and laboratory. Prerequisite: 476. Elective Pass/Fail.
- 486-3 Electric Energy Sources.** Principles and utilization of nuclear, solar, and fossil-fuel generators. Direct energy converters including thermionic, thermoelectric, and photovoltaic. Prerequisite: Engineering 385 or consent of instructor. Elective Pass/Fail.
- 487-4 Power Systems Analysis I.** Introduction to analysis of electric power systems. Modeling of power system components. Power system configuration. Control of power and frequency. Control of voltage and reactive power. Load-flow analysis. Introduction to symmetrical components. Prerequisite: Engineering 385. Elective Pass/Fail.
- 492-1 to 5 Special Problems in Engineering.** Topics and problems selected either by student or instructor. Prerequisite: senior standing and consent of instructor. Elective Pass/Fail.
- 527-3 Digital Systems Design II.**
- 536-3 Network Synthesis.**
- 547-3 Solid-State Theory of Electronic Materials.**
- 556-3 Modern Control Theory.**
- 557-6 (3, 3) Complex Systems.**
- 577-4 Electromagnetic Fields III.**
- 580-1 to 4 Seminar.**
- 586-3 Power Systems Analysis II.**
- 592-1 to 5 Special Investigations in Engineering.**
- 599-1 to 6 Thesis.**

ENGINEERING MECHANICS AND MATERIALS (Department, Major [Engineering] Courses)

The engineering mechanics and materials option is designed to help students prepare for a broad professional career in areas of civil and/or mechanical engineering, to specialize in selected areas of engineering mechanics, or to prepare for graduate studies. Course work is offered by the department in experimental analysis, vibrations, machine design, materials science, hydraulics, soils and foundations, structural analysis and design, numerical methods, and supersonic flow. The student, with the help of an adviser, is encouraged to choose a sequence of technical electives to achieve a solid and coherent specialization.

Bachelor of Science Degree, School of Engineering and Technology

ENGINEERING MAJOR—ENGINEERING MECHANICS AND MATERIALS SPECIALIZATION

<i>General Studies Requirements</i>	29 ¹
GSA: Substitute basic science	
GSB	9
GSC	9
GSD: Substitute mathematics	7
GSE:	4
<i>Requirements for Major in Engineering</i>	103
Basic Sciences	18 ²
Physics 205a, b; 255a, b	8
Chemistry 224 and 225	7
GSA 110 or 115 or 209, or substitute Geology 220	3
Mathematics 150, 250, 251, 305 and approved elective-3	17
Engineering (Core) 100, 200, 222, 260a,b, 300, 302, 311, 312, 313, 335, 345, 361, 385, 443	42
Specialization in Engineering Mechanics and Materials	26

EMM (core) 413, 447, 449, 464; Select two from the following design-oriented courses: 375, 409, 419, 440, 441, 442, 444, and 448	15
Technical electives in approved areas (at least 8 hours must be EMM credit)	11
Total	132

¹Courses required for the major will apply toward 16 hours of General Studies making a total of 45 in that area.
²Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairman or a designate, meet this requirement.

Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required of all engineering mechanics and materials students.

375-3 Design of Machine Elements. Working stresses, shafting, springs, belts, clutches, brakes, chains, lubrication, spur gears. Prerequisite: Engineering 260b, 311 or equivalent.
409-3 Hydrology and Hydraulic Engineering Design. Study of the hydrologic cycle. Streamflow analysis. Unit hydrograph. Matrix methods; synthetic methods. Frequency analysis; multivariate distributions. Hydrologic and hydraulic routings. Groundwater hydrology. Application of hydrology to the design of various hydraulic structures: small dams, spillways, drainage systems. Prerequisite: Engineering 313 or equivalent or consent of instructor. Elective Pass/Fail.

413-3 Mechanics of Fluids—Analysis and Design. The analysis and design of the elements of fluid systems. Fluid machinery; open and closed conduit systems; flow through porous media; principles of propulsion. Selected design topics. Prerequisite: Engineering 313 or equivalent.

414-2 Intermediate Fluid Mechanics. A coherent presentation of the specialized topics of fluid dynamics from the common analytical background of the general equations of motion. Real fluid flow theory and the Navier-Stokes equations. The Potential Flow theory and the Laplace equation. Introduction to conformal mapping. Numerical methods. The Boundary Layer theory. Dynamic similitude. Normalized equations of motion and energy. Modeling ratios. Prerequisite: Engineering 313 or equivalent.

417-3 Fundamental Compressible Fluid Flow. Equations of motion for compressible flow. Wave propagation in compressible media. Isentropic flow of a perfect gas. Normal shock waves. Oblique shock waves. Prandtl Meyer flow. Flow with friction, heat addition and heat loss. Flow with applied magnetic fields. Imperfect gas effects. Prerequisite: Engineering 313 or equivalent.

419-3 Soil Mechanics and Foundation Engineering Design. Study of soil behavior and its application in foundation engineering. Laboratory. Soil-water systems and interactive forces; stress-strain characteristics; effective stress concept; drained and undrained conditions for saturated soils; theory of consolidation. Design of retaining walls, earth dams, shallow and deep foundations. Prerequisite: Engineering 311, 313, or consent of instructor.

440-3 Structures. An introduction to structural engineering. The design procedure. Loads. Types of structures. Structural materials, safety. Social and environmental considerations. Analysis of structures. Influence lines. Deflections. Slope deflection. Moment distribution. Matrix methods. Prerequisite: Engineering 311 or consent of instructor.

441-3 Vibrations in Machines and Structures. Systems with several degrees of freedom. Equations of motion. Phasor and trigonometric solution. Applications. Prerequisite: Engineering 260b and Mathematics 305.

442-3 Structural Steel Design. An introduction to structural steel design with emphasis on buildings. Composite design. Plate Girders. Rigid frames. Prerequisite: 440 or consent of instructor.

444-3 Reinforced Concrete Design. Behavior and strength design of reinforced concrete beams, slabs, compression members, and footings. Prerequisite: 440 or consent of instruction.

447-2 Intermediate Mechanics of Materials and Structures. Shear center for beams. Unsymmetrical bending. Flexure of curved members. Contact stresses. Energy methods. Inelasticity in one dimension. Buckling formulas. Prerequisite: Engineering 311.

448-3 Experimental Stress Analysis. Theoretical and experimental methods of determining stresses and strains; use of optical, electrical, and mechanical instrumentation; relation of model and prototype; brittle coating; electrical resistance gages; Moire analysis; two-dimensional photoelastic method. Laboratory. Prerequisite: Engineering 311.

449-2 Intermediate Dynamics. Kinematics and kinetics of plane and three-dimensional motion. The principles of work and energy applied to the motion of rigid bodies. The principle of impulse-momentum applied to variable mass and rigid body systems including gyroscopic motion. Vibrational analysis of single degree of freedom systems. Prerequisite: Engineering 260b.

451-3 Numerical Methods in Mechanics. An introduction to the available numerical methods and techniques which are employed to solve engineering problems with special emphasis devoted to areas of mechanics involving stress analysis, vibrations, fluid flows, mechanisms, and structures. Prerequisite: Engineering 222, 311, 313 or consent of instructor.

458-2 Photoelasticity. Optics related to photoelasticity; theory of photoelasticity; photoelastic model materials; analysis techniques; three-dimensional photoelasticity; birefringent coatings; holography in photoelasticity; application of photoelastic methods in industrial problems. Laboratory. Prerequisite: Engineering 311.

462-3 Matrix Methods of Structural Analysis. Flexibility method and stiffness method applied to framed structures. Introduction to finite elements. Prerequisite: Engineering 222 and 311 or consent of instructor.

464-2 Intermediate Materials Science. Internal structure, treatment, and properties of metals and intermetallic compounds. Theory of dislocations in metals. Plastic flow, phase transformations, martensitic transformation, and x-ray diffraction identification of metallic phases. Prerequisite: Engineering 312.

465-3 Preparation of Crystalline Materials. Crystalline materials preparation. Phase rule. Crystal growth. Homogeneous and heterogeneous nucleation. Absorption. Impurities, rate of crystallization. Preparative crystallization. Twinning. Spiral growth theory. Recrystallization. Perfection of crystalline materials. The solid as an imperfect body. Isomorphic substitution. Composition disorder. Electron holes and traps. Diffusion. The role of imperfections. Prerequisite: 464.

470-3 Engineering Analysis. Methods of solution for basic ordinary differential equations with applications to engineering systems. Basic methods of solution for partial differential equations with emphasis on applications of the Laplace, Poisson, and heat equations to engineering problems. Basic vector field theory; transformation theorems. Simulation techniques applied to engineering systems. Prerequisite: Mathematics 305 or equivalent.

492-1 to 5 Special Problems in Engineering. Selected engineering topics and/or problems in (a) Stress analysis, (b) Fluid flow analysis, (c) Structural engineering, (d) Computational mechanics, (e) Materials engineering, and (f) Dynamics. Prerequisite: consent of instructor.

504-6 (3, 3) X-Ray Diffraction and the Solid State.

505-3 Physical Properties of Crystalline Materials.

512-3 Introduction to Theoretical Elasticity.

513-3 Mechanics of Viscous Fluids.

514-3 Mechanics of Inviscid Fluids.

515-2 Wave Motion.

518-3 Introduction to Turbulence.

540-2 Elastic Stability.

542-2 Theory of Plates.

544-3 Advanced Design of Reinforced Concrete.

550-3 Advanced Compressible Fluid Flow.

561-3 Intermediate Vibrations.

580-1 to 4 Seminar.

592-1 to 4 Special Investigations in Engineering.

599-1 to 6 Thesis.

THERMAL AND ENVIRONMENTAL ENGINEERING (Department, Major [Engineering] Courses)

The option in thermal and environmental engineering prepares graduates to provide engineering solutions to problems such as optimum energy utilization, conservation of resources and environmental protection by working in or across the areas associated with traditional engineering disciplines of mechanical and sanitary engineering. This option allows study in such areas as heat and mass transfer, thermal design, pollution control engineering (air, water, and solid waste) and process engineering. Previous graduates are successfully practicing in manufacturing and energy industries, in consulting engineering firms, in state and federal agencies and in graduate studies.

Bachelor of Science Degree, School of Engineering and Technology

ENGINEERING MAJOR—THERMAL AND ENVIRONMENTAL ENGINEERING
SPECIALIZATION

General Studies Requirements 291

GSA: Substitute basic science	
GSB	9
GSC	9
GSD: Substitute mathematics	7
GSE	4
Requirements for Major in Engineering	103
Basic Sciences	18 ²
Physics 205a, b; 255a,b	8
Chemistry 224 and 225	7
GSA 110 or 115 or 209, or substitute Geology 220	3
Mathematics 150, 250, 251, 305 and approved elective-3	17
Engineering (Core) 100, 200, 222, 260a,b, 300, 302, 311, 312, 313, 335, 345, 361, 385, 443	42
Specialization in Thermal and Environmental Engineering	26
TEE (Core) 314, 404, 435, and 401 or 417 or 418	11
Technical electives in approved areas (at least 6 hours must be selected from TEE design-oriented courses.) These courses are 406, 408, 415, 416, and 423	15
Total	132

¹Courses required for the major will apply toward 16 hours of General Studies making a total of 45 in that area.

²Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairman or a designate, meet this requirement.

Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required of all thermal and environmental engineering students.

- 314-4 Introduction to Environmental Pollution.** Basic engineering aspects and interrelation of air, water and land pollution. Problems, sources and effects of pollution. Pollution abatement. State and Federal air and water quality standards and engineering systems for pollution abatement. Prerequisite: Chemistry 224, junior standing. Elective Pass/Fail.
- 400-3 Power and Refrigeration Cycles.** Use of engineering thermodynamics in analysis of power and refrigeration cycles. Detailed treatment of various gas and vapor power cycles including combined gas and steam cycles. Thermodynamics of combustion. Gas and vapor refrigeration cycles. First and Second Law analysis and turbo-machinery. Prerequisite: Engineering 300.
- 401-1 Thermal Measurements Laboratory.** Study of basic physical measurements used in the thermal sciences. Calibration techniques for temperature sensors. Transient and steady-state error analysis. Thermal and transport property measurements. Prerequisite: Engineering 302.
- 402-3 Intermediate Heat Transfer.** Analysis of forced convective momentum and heat exchange in tubes and over surfaces. Applications to heat transfer equipment design and processes. Prerequisite: Engineering 302.
- 404-3 Thermal Systems Optimization.** Simulation and optimization of thermal energy conversion systems based on principles of thermodynamics, heat transfer, and fluid mechanics. Mathematical modeling of the performance of turbines, pumps, fans, mass and treatment of experimental data. Application of the principal optimization methods encountered in engineering practice. Prerequisite: Engineering 302, 361.
- 406-3 Thermal Systems Design.** Application of the principles of engineering analysis to the design of thermal systems. Consideration of such systems as refrigerators, building air conditioning systems, spacecraft control systems, solar heating systems, and gas liquefying systems. Prerequisite: Engineering 300, 302.
- 408-3 Energy Conserving Systems.** Criteria for selecting alternative energy systems: amount of energy resources; overall efficiency of available energy utilization; effects of legal, societal, environmental and economic constraints upon the use of energy systems. Application of these criteria to systems utilizing renewable versus non-renewable energy sources. Emphasis on analysis and engineering design of energy conserving systems. Prerequisite: Engineering 302 and Engineering 361 or consent of instructor.
- 415-3 Wastewater Treatment.** A study of the design equations used in physical, chemical, and biological treatment processes and comparison to design by state standards. Basics of bacteria and their metabolic processes in the degradation of organic wastes. Treatment and disposal of sludges produced in wastewater treatment. Advanced waste treatment processes;

reuse of wastewater. Concurrent enrollment in 417 is recommended for students in thermal and environmental engineering option. Prerequisite: 314.

416-3 Air Pollution Control. Engineering control theory, procedures, equipment, and economics related to particulate and gaseous emissions control. The environmental impact of controlling emissions. Sampling and analysis procedures. Laboratory work includes design, construction, and use of a source sampling system. Safety glasses are required. Concurrent enrollment in 418 is recommended for students in thermal and environmental engineering option. Prerequisite: 314.

417-1 Water Quality Laboratory. Measurements of water quality parameters performed. Use of modern instrumental techniques demonstrated. Safety glasses are required. Prerequisite: 314.

418-1 Air Quality Laboratory. This laboratory consists of design, construction, and use of systems to measure and analyze ambient atmospheric pollution. Safety glasses required. Prerequisite: concurrent enrollment in 416.

423-3 Waste Heat Management. Energy sources and waste heat produced in their utilization. Management of heated surface water effluents to minimize their ecological impact; chemical, physical, and biological. Methods of waste heat disposal from electric power plants. Selection and design of waste heat disposal systems. Prerequisite: 314, Engineering 300, or consent of instructor.

435-3 Heat and Mass Transfer Processes. Review of single phase and two phase heat transfer. Heat exchanger design. Mass transfer principles and processes. Processes involving simultaneous heat and mass transfer. Prerequisite: 302.

492-1 to 5 Special Problems in Engineering. Engineering topics and problems selected by either the instructor or the student with the approval of the instructor. Five hours maximum course credit. Prerequisite: senior standing and consent of instructor.

500-3 Advanced Engineering Thermodynamics.

501-3 Transport Phenomena.

502-3 Advanced Heat Transfer.

510-3 Solid Waste Collection and Disposal.

515-3 Advanced Biological Treatment Processes.

516-3 Water Resources Management.

517-3 Industrial Waste Treatment.

525-3 Small Particle Phenomena.

531-4 Reaction Engineering and Rate Processes.

532-3 Separation Processes and Equilibrium Operations.

580-1 to 4 Seminar.

592-1 to 4 Special Investigations in Engineering.

599-1 to 6 Thesis.

Engineering Biophysics (Major, Courses)

The program is essentially a five-year curriculum leading to the Master of Science degree in engineering biophysics. However, a full four-year undergraduate curriculum is offered leading to the degree of Bachelor of Science with a major in engineering biophysics. The undergraduate curriculum is interdisciplinary, emphasizing selected areas in the behavioral, engineering, life, mathematical, and physical sciences. The first two years of the program are sufficiently general and basic so the student can move freely from this program into the traditional scientific disciplines without penalty. The fifth year emphasizes the advanced aspects in the behavioral and life sciences and provides for the student optimum flexibility in electives as well as practical biomedical experience.

Students interested in this program will be advised by the administrator of the program or by members of the executive committee.

Bachelor of Science Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>Supplementary College of Science Requirements</i>	11
Foreign Language (French, German, or Russian recommended)	(4) + 4
Biological Science (Not General Studies)	6 ²
Mathematics 111	(4) + 1
<i>Requirements for Major in Engineering Biophysics</i>	60-62 ³

Required courses are selected in consultation with the administrator to ensure a background of basic courses in natural, physical, and social sciences.	
Electives	2-4 ⁴
Total	120

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

²With proper selection, these courses can also satisfy the GSA-2 requirement.

³It is assumed the student will take General Studies substitute courses and the hours in the major may be increased by an equivalent amount.

⁴By effecting footnote 2, electives can be increased to 7-9 credit hours.

Courses

- 492-1 to 5 (1 per semester) Colloquy in Engineering Biophysics I. Discussion of topics related to engineering biophysics; guest lecturers, field trips. Offered in spring semesters only. Required for undergraduate Engineering Biophysics majors. Mandatory Pass/Fail.
- 592-1 to 3 (1 per semester) Colloquy in Engineering Biophysics II.
- 598-1 to 6 Internship in Engineering Biophysics.
- 599-1 to 6 Thesis.

Engineering Mechanics and Materials

(SEE ENGINEERING)

Engineering Technology (Major, Courses)

Engineering technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the craftsman and the engineer at the end of the spectrum closest to the engineer.

All curricula in engineering technology are accredited by the Engineers' Council for Professional Development. These curricula are the civil engineering technology, electrical engineering technology, and mechanical engineering technology specializations. ECPD recommends that graduates of these baccalaureate programs be called engineering technologists.

Bachelor of Science Degree, School of Engineering and Technology

ENGINEERING TECHNOLOGY MAJOR—CIVIL ENGINEERING TECHNOLOGY
SPECIALIZATION

The civil engineering technology specialization is primarily suited for those students interested in pursuing careers with highway departments or in construction industries. However, the broad range of studies insures a solid technical background in many areas of civil engineering technology. Graduates of the program are employed by railroads, coal companies, consulting engineering firms, state and local agencies, and various construction firms.

General Studies Requirements	45
Requirements for Major in Engineering Technology	76
GSD 118	(2)
Chemistry 140a	(3) + 1
Mathematics 111, 150, 250	(4) + 9
Physics 203a, b; 253a, b	(6) + 2
Engineering 222	2

Industrial Technology 390	2
Engineering Technology 103, 202, 245a, 260a, b, 310a, 311, 313a, 314a, 315, 318a, c, 363a, 363b or c, 364a, 365, 426a, approved technical electives-10	60
<i>Electives</i>	3
<i>Total</i>	124

ENGINEERING TECHNOLOGY MAJOR—ELECTRICAL ENGINEERING TECHNOLOGY
SPECIALIZATION

The electrical engineering technology specialization is designed to prepare technologists who are capable of technical design and who can contribute to the development and production of electrical circuits and devices. In addition, graduates are capable of participation in the planning and installation of power distribution systems and operating and maintaining complex electrical systems. Graduates of the program are employed in communications, power, electronics, sales, manufacturing, and other fields.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Engineering Technology</i>	76
GSD 118	(2)
Chemistry 140a	(3) + 1
Mathematics 111, 150, 250	(4) + 9
Physics 203a, b; 253a, b	(6) + 2
Engineering 222	2
Industrial Technology 390	2
Engineering Technology 103, 245a, 260a, b, 304a, 313a, 318a, 332a, b, 403a, b, 437a, b, 438a, approved technical electives-11	60
<i>Electives</i>	3
<i>Total</i>	124

ENGINEERING TECHNOLOGY MAJOR—MECHANICAL ENGINEERING TECHNOLOGY
SPECIALIZATION

The mechanical engineering technology specialization is designed to prepare graduates for a career in the power industry; provides a background in general mechanical technology. Graduates are employed in industries which have a need for technologists trained in the generation, transmission, and utilization of mechanical energy.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Engineering Technology</i>	76
GSD 118	(2)
Chemistry 140a	(3) + 1
Mathematics 111, 150, 250	(4) + 9
Physics 203a, b; 253a, b	(6) + 2
Administrative Sciences 301	3
Engineering 222	2
Industrial Technology 390	2
Engineering Technology 103, 104, 245a, 260a, b, 301a, 308a, 311, 313a, b, 318a, b, 323, 424a, b, approved technical electives-10	57
<i>Electives</i>	3
<i>Total</i>	124

Courses

Safety glasses, a suitable calculator or slide rule, and textbooks are required for most of the following courses.

103-3 Engineering Drawing I. Principles and practices of engineering drawing. Orthographic (multiview) projection; sections and conventions; the spatial relationship of points, lines, and planes; revolution; and basic dimensioning and tolerancing. Drawing supplies and problems workbook required, costing approximately \$15.00.

104-3 Engineering Drawing II. Principles and practices of engineering drawing. Representation of mechanical components; dimensioning; tolerancing; electrical and electronic diagrams; and fluid power diagrams. Drawing supplies and problems workbook required. Cost is approximately \$8.00. Prerequisite: 103.

202-2 Structural Detailing. Principles and practices of engineering drawing as applied to structural design with emphasis on reinforced concrete and structural steel drawings. Drawing supplies required, cost \$8.00. Prerequisite: 103.

236-2 Electrical Instrumentation. Theory and use of D.C. and A.C. instruments; measurement and error, units, standards, meters, bridges, oscilloscopes, electronic instruments, instruments for generation and analysis of waveforms, counters, and transducers, Laboratory. Prerequisite: Mathematics 111.

244-3 Mechanical Systems for Industry. A mechanical fundamentals course covering such topics as gears, belts, other machine parts, fluidics, and lubrication techniques.

245-6 (3, 3) Electrical Systems for Industry. (a) Fundamentals of electrical lighting and industrial wiring. Motor types, synchronous motors, fractional-horsepower motors, applications, bearings, lubrication and rebuilding. Laboratory. Prerequisite: Mathematics 111. (b) Introduction to electronics: laboratory practices, oscilloscopes, meters, components, power supplies, amplifiers, and characteristics of semiconductor devices. Laboratory. Prerequisite: Mathematics 111.

260-7 (4, 3) Principles of Mechanics. (a) Statics and Strength of Materials. Principles of forces, moments, and static equilibrium; centroids, centers of gravity, and moments of inertia; stress and strain; torsion, bending, and combined stresses. (b) Dynamics. Friction; particles and rigid bodies in translation, rotation, and plane motion; relative motion; impulse and momentum; work and energy. Must be taken in a,b sequence. Prerequisite: Mathematics 150 or concurrent enrollment.

263-3 Mine Surveying. Development of basic surveying practices and use of surveying equipment, linear and angular measurements; mapping, calculations; applications of mine surveying. Laboratory. Civil engineer's scale required costing approximately \$3.00. Field notebook for each course costs approximately \$1.00. Prerequisite: Mathematics 111.

301-6 (3, 3) Refrigeration and Air Conditioning. (a) Discussion of refrigerating cycles. Refrigeration at more than one level. Operation and ratings of various types of compressors, evaporators, condensers, and automatic controls used in commercial refrigerating systems. Heat flow problems in condensers, evaporators, and cooling towers. Prerequisite: 313a. (b) Control of temperature and humidity in buildings, or other large areas. Air handling equipment, duct systems, and air distribution within the space. Fundamental principles and techniques for cooling and dehumidification for comfort. Equipment and control systems. Prerequisite: 313a.

304-7 (4, 3) Electrical Circuits. (a) Solutions to D.C. steady-state networks by branch, equivalent circuit, loop current, and node voltage methods. Study of network theorems. Extension of these topics to A.C. steady-state by use of the phasor transform. Laboratory. Prerequisite: Mathematics 150 or concurrent enrollment. (b) Further topics in A.C. circuits; frequency response, resonance, filters, transformers and magnetic coupling, complex power, and dependent sources. Transient response by the classical solution of differential equations and by Laplace transform methods. Laboratory. Prerequisite: 304a, Mathematics 250 or concurrent enrollment.

308-6 (3, 3) Machine Design. (a) Strength and safety considerations in design of machine parts. Fatigue and stress concentrations, bearings, brakes, clutches and springs. Applications of the principles of mechanics to problems of design and development, mechanisms. Prerequisite: 260a. (b) Combined stresses, gearing, curved beams, high speed cams, thick cylinders, and flat plates. Student undertakes the design of a complete machine. Prerequisite: 308a, 311.

310-6 (3, 3) Heavy Construction. (a) The fundamental elements of heavy construction methods and equipment. Prerequisite: 206a, b or consent of instructor. (b) Construction planning, estimating, and management procedures and techniques. Complete detailed contractor's estimates for bid are prepared for a heavy construction project. Civil engineer's scale required, costing approximately \$3. Prerequisite: 310a.

311-3 Strength of Materials. Statically indeterminate beams and beam deflections; combined static and dynamic loading; column theory; connections. Prerequisite: 260a.

313-6 (3, 3) Elementary Heat Power. (a) The fundamental laws of heat power, properties of systems, liquids, vapors, and liquid-vapor mixtures. (b) Engine cycles and applications. Must be taken in a,b sequence. Prerequisite: Mathematics 150.

314-6 (3, 3) Soil Mechanics. (a) Laboratory determination of the basic properties of soils; components of soil surveys; engineering soil classifications; fundamental study of soil properties. Laboratory. Laboratory notebook required, costing approximately \$4. (b) Soil water and seepage; frost action in soils; soil stabilization; stress distribution in soils and introduction to foundation design. Prerequisite: 260a, 314a.

315-3 Elementary Structural Analysis. Applications of the principles of mechanics to the determination of forces and deflections of statically determinate structures; approximate methods of determining member forces in indeterminate frames; study of various types of structures and loading conditions. Prerequisite: 260a.

318-8 (2, 3, 3) Hydraulics and Pneumatics. (a) Fundamentals of fluid statics, basic fluid flow concepts for idealized fluids, flow networks, and introduction to viscous fluids. Prerequisite: 260b or concurrent enrollment. (b) Viscous flow in closed conduits, basic hydraulic machinery and fluid power systems. Laboratory. Prerequisite: 318a, Engineering 222. (c) Flow measuring devices; collection, storage and distribution of water; collection and transportation of sewage; pumps and pumping. Laboratory. Prerequisite: 318a.

320-3 Mechanical Laboratory. Various types of measuring instruments; gas analysis; lubricant testing, and testing of thermodynamic systems, including internal combustion engines, fans, heat exchangers, and refrigeration systems. Laboratory. Safety glasses required, costing approximately \$4. Prerequisite: 313a.

322-3 Internal Combustion Engines. The design and principles of operation of internal combustion engines. The Otto, Diesel, and Brayton cycles and the fundamental thermodynamic laws involved. Prerequisite: 313a.

323-2 Operation of Public Utilities. (See Economics 323.) Prerequisite: GSB 211 or consent of instructor.

332-6 (3, 3) Electromechanical Principles and Devices. (a) Introduction to D.C. and A.C. machinery. Theory and operating characteristics of D.C. generators and D.C. motors. Laboratory. Prerequisite: 304a or concurrent enrollment. (b) Theory and operating characteristics of polyphase and single-phase A.C. motors. Special applications of A.C. and D.C. motors. Laboratory. Safety glasses required, costing approximately \$5.00. Prerequisite: 304a or concurrent enrollment.

342-2 Technology Design. An elective project on any technical subject selected by the student with advice from the instructor. Stimulates original thought and creativity. Prerequisite: senior standing.

363-9 (3, 3, 3) Surveying. (a) Use and care of surveying instruments; principles of surveying practice and computations. Laboratory. Prerequisite: 103, Mathematics 111, (b) U.S. Public Land Systems and boundary surveys; route surveying; field astronomy. Laboratory. Prerequisite: 363a. (c) Topographic surveying; precise surveying; geodesy. Laboratory. Prerequisite: 363a. Civil engineer's scale, costing approximately \$3.00 and field notebook, costing approximately \$1.00, required for each course.

364-7 (4, 3) Highway Engineering Technology. (a) Highway surveys, plans and computations. Highway design, drainage, roadside development and subgrade structure. Study of types of base courses, pavements, and surfaces. Highway construction and maintenance. Laboratory. Prerequisite: 363a, 314a or consent of instructor. (b) Highway administration, planning, economics, and finances. Traffic engineering. Introduction to railroad and airport design. Prerequisite: 364a.

365-3 Water Treatment and Sanitation. Introduction, description, and design of potable water and wastewater treatment facilities. Chemical coagulation, sedimentation, disinfection, and hardness removal of water. Sanitation measures and control of communicable diseases. Laboratory.

403-8 (4, 4) Electronics Technology. (a) Fundamental theory and operation of semiconductor diodes and bipolar transistors, incremental models for transistors, biasing, stability, and feedback of single and multistage amplifiers. Parameters and applications of field-effect transistors, opto-electronic devices, thyristors, unijunction transistors and amorphous semiconductors. Laboratory. (b) Parameters and applications of operational amplifiers, linear integrated circuits, monolithic voltage regulators, and digital integrated circuits. Laboratory. Must be taken in a,b sequence. Prerequisite: 340b.

415-4 Elementary Structural Design. Introduction to structural properties of steel and reinforced concrete. Design of basic steel elements: tension members, beams, columns, and connections. Basic design of reinforced concrete elements: beams, columns, and footings. Use of AISC and ACI codes. Prerequisite: 311 (or concurrent enrollment), 315.

424-6 (3, 3) Power Systems Technology. (a) Fundamentals of basic power plant operation and equipment; e.g., fuels, steam generators, heat exchangers, turbines, pumps, and nuclear reactors. Prerequisite: 313a. (b) A study of cycles, heat balances, efficiencies and power plant economics. Student is exposed to the design considerations and trade-offs associated with the total design of a power plant. Prerequisite: 313b, 318b, 424a.

426-4 (2, 2) Photogrammetry. (a) Cameras and photography; flight planning; mathematical principles of vertical and tilted aerial photographs; ground control methods; extension of control; stereoscopy and parallax; basic instruments, stereo plotters, and latest developments. Laboratory. Prerequisite: 363a or consent of instructor. (b) Rectification of tilted

photographs; stereoscopic plotting instruments; principles and use of oblique photography; analytic photogrammetry and new concepts. Laboratory. Prerequisite: 426a or consent of instructor.

437-6 (3, 3) Communications Systems Technology. (a) Radio-frequency transmission-line theory. Electromagnetic fields in rectangular and circular waveguides. Laboratory. Prerequisite: 340b. (b) Communication systems with a unified treatment of various types of transmission systems with emphasis on the role of system bandwidth and noise in limiting the transmission of information. Laboratory. Prerequisite: 403a, 437a.

438-8 (4, 4) Design of Control and Digital Systems. (a) Fundamentals of control systems; equations of electrical, mechanical, hydraulic, and thermal systems; applications of Laplace transforms, transfer functions, block diagrams and flowgraphs. Computer implemented graphical analysis and design methods: root locus, frequency response. Nyquist diagrams, and compensator design. Continuous-systems simulation laboratory. Prerequisite: 340b, Engineering 222. (b) Design of digital systems; logic operations; number systems and applications. Digital systems simulation laboratory. Prerequisite: Engineering 222.

439-3 Microprocessor Applications and Hardware. A study of microprocessor applications and hardware based on microprocessor manufacturer's literature. System configuration, hardware, requirements, typical instruction set, programming, input/output techniques, interfaces, and peripheral devices. Prerequisite: 438B or concurrent enrollment.

492-1 to 6 Special Problems in Industry and Technology. Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected technical problems. Prerequisite: consent of instructor.

English (Department, Major Courses)

The major in English is 33 semester hours at least half of which must be taken at Southern Illinois University at Carbondale. The English major may choose from five specializations.

Students who wish to declare English as a major should consult the director of undergraduate programs in English early in their college careers. Continuing students who wish to declare an English major should petition the Department of English for admission to the department. Transfer students should bring their transcripts and evaluation of transfer credit. Thereafter, all English majors must have their advance registration forms signed by an adviser in the Department of English. Only English courses which are completed with at least a C will fulfill a major requirement. Deviations from regular programs must have prior written department approval.

Students who wish to construct an inter-departmental major in English and certain related fields may do so in consultation and with the approval of an English department adviser.

All students are strongly urged to supplement their English majors through the study of classical and modern languages, as well as the study of foreign literature in translation. Majors preparing for graduate school should take two years of a foreign language.

Although a minor field is not required, students are urged to consider complementary minor fields such as foreign languages and literatures, history, philosophy, and journalism.

ENGLISH CORE CURRICULUM

All students majoring in English will take the following courses:

English 302, 309, 390, and 471 or 472.

Bachelor of Science Degree, College of Education or Bachelor of Arts Degree, College of Liberal Arts

Students who wish to become certified teachers of English may pursue their majors as follows:

General Studies Requirements	45
Requirements for Major in English	33

<i>Professional Education Requirements</i>	24 ¹
<i>Electives</i>	18

Students in the College of Liberal Arts must complete the college requirements as a part of the 18 hours. (See page 70.)

<i>Total</i>	120
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In addition to the core curriculum teacher training candidates will take the following courses:

English 300; 485; a 400-level course in English literature before 1800; a 400-level course in American literature before 1900; a 400-level course in world literature; two electives chosen from 300 and 400-level English courses.

¹In order to qualify for entrance into the teacher education program and for a student teaching assignment, students must have a grade point average of at least 2.50 (A is 4.0) in the major.

Bachelor of Arts Degree, College of Liberal Arts

A student may wish to pursue one of several specializations in the College of Liberal Arts. The degree earned and the requirements for the degree are as follows:

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
<i>Requirements for Major in English</i>	33
<i>Electives</i>	28-34
<i>Total</i>	120

ENGLISH MAJOR—GENERAL EDUCATION OR GRADUATE SCHOOL SPECIALIZATION

In addition to the core curriculum, students will take seven electives from the 200, 300, and 400-level courses in English, with several courses at the 400-level. Students planning to enter graduate school are strongly urged to take two years of a foreign language or the equivalent. Students should consult with their departmental adviser to achieve a suitable range and breadth of course work.

ENGLISH MAJOR—GENERAL WRITING AND CREATIVE WRITING SPECIALIZATION

In addition to the core curriculum, students should take at least two courses selected from English 281, 282, 283; at least two courses from 381, 382, 383; and English 492. Elective courses outside the Department of English may be accepted toward the major with prior written approval of the Department of English.

ENGLISH MAJOR—PREPROFESSIONAL SPECIALIZATION

In addition to the core curriculum, majors interested in such fields as law, business, and government will take the following courses:

English 300, 391, 445; four electives, which may concentrate on a special interest, and which, with the consent of the departmental adviser, may include courses in other departments.

ENGLISH MAJOR—DEPARTMENTAL HONORS PROGRAM SPECIALIZATION

Any of the specializations described in this catalog may be modified by a student's entry into the departmental honors program. The Department of English invites qualified students to enter the program.

Minor

The minor in English is a minimum of 18 semester hours. Minors are available with several specializations, and the following are listed as examples only. Stu-

dents interested in English as a minor are invited to confer with the director of undergraduate programs in English, or an adviser in the Department of English.

ENGLISH MINOR—TEACHING SPECIALIZATION

For students who wish to meet the minimum certification requirements for teaching English in the secondary schools, the following courses are required: English 209; 300, 390; 471 or 472; and two of the following: English 302, 309, 445.

For the following minor specializations, these courses are recommended as part of the 18 hour minimum.

ENGLISH MINOR—PREPROFESSIONAL SPECIALIZATION

English 209; 300; 391; 445; 471 or 472.

ENGLISH MINOR—GENERAL WRITING OR CREATIVE WRITING SPECIALIZATION

Writing minors should take at least one course from English 290, 390; two courses from English 281, 282, 283; and two courses from English 381, 382, 383.

ENGLISH MINOR—WORLD LITERATURE SPECIALIZATION

English 209; 390; and four courses from 425, 438, 445, 455, 465. For further information, see catalog section titled Comparative Literature.

ENGLISH MINOR—OTHER SPECIALIZATIONS

Students wishing to arrange other specializations in English should consult the director of undergraduate programs in English or one of the departmental advisers.

Courses

209-3 Introduction to the Forms of Literature. Poetry, drama, and fiction. Statement and illustration of the techniques of the three genres over the range of American and English literature. Prerequisite: GSD 117, 118, or 119, or equivalent.

281-3 Creative Writing: Beginning Fiction. Introduction to basic techniques of writing creative prose with emphasis on characterization, plot, and narrative devices. Study and application of various methods of short story writing. Exercises. Critiques. Prerequisite: GSD 119 or consent of instructor. Elective Pass/Fail.

282-3 Creative Writing: Beginning Poetry. Introduction to basic theories and techniques of poetry writing with emphasis on metrics, forms, and poetic stances. Study and application of each of these general aspects of writing poetry. Exercises. Critiques. Prerequisite: GSD 119 or consent of instructor. Elective Pass/Fail.

283-3 Creative Writing: Beginning Drama. Introduction to basic problems and techniques of dramatic presentation. Emphasis on producing works for the amateur market, with a secondary purpose of advising future teachers of possibilities of using plays, skits, etc., as teaching aids. Exercises in creating original dramatic material. Critiques. Prerequisite: GSD 119 or consent of instructor. Elective Pass/Fail.

290-3 Intermediate Expository Writing. Designed for any University student, to improve writing skills beyond freshman composition. Based on individual needs and areas of specialization. Prerequisite: GSD 117, 118 or 119, or equivalent.

291-1 Writing Research Papers. A course for any student in the University who wants or needs intensive, directed help in preparing research papers. Instruction will be individualized by directing students in the use of the style sheet recommended by their major department. Prerequisite: GSD 117, 118, or 119 or equivalent.

300-3 Introduction to Language Analysis. Nature of language and linguistic inquiry. Dialectology, usage, and chief grammatical descriptions of present day American English. Required of teacher training candidates.

302-3 A Literary History of England. Social, historical, and intellectual backgrounds of English literature, with selected readings from each period.

309-3 A Literary History of the United States. Social, historical, and intellectual backgrounds of American literature, with selected readings for each period.

381-3 Creative Writing: Advanced Fiction. Emphasis on the long short story and novella with exercises and study oriented to more sustained forms of prose than the short story. Theories and techniques of extended fictional forms treated. Critiques. Prerequisite: 281 or consent of instructor. Elective Pass/Fail.

382-3 Creative Writing: Advanced Poetry. Concentration on modern forms and theories

of poetry. Writing assignments and exercises in the application of various poetic techniques, primarily 20th century American. Critiques. Prerequisite: 282 or consent of instructor. Elective Pass/Fail.

383-3 Creative Writing: Advanced Drama. Concentration on serious literary statements through drama, and on practical instruction in writing extended and concentrated dramatic forms. Presentation of various dramatic theories through the study of representative plays. Drama writing exercises and critiques. Prerequisite: 283 or consent of instructor. Elective Pass/Fail.

390-3 Advanced Composition. Expository writing. Prerequisite: C average in GSD 101 and 117, 118, or 119, or equivalent. Open to English majors and minors or with consent of department.

391-3 Precision in Reading and Writing. To improve the student's ability to read and write with precision and clarity, depending on reading complex material (requiring no particular background for comprehension) and on writing precis of it. Prerequisite: grade of B in GSD 117, 118, or 119 or C in English 290.

393-3 to 9 (3 per topic) Special Topics in Literature and Language. Topics vary and are announced in advance. Both students and faculty suggest ideas. May be repeated as the topic varies. Prerequisite: departmental approval. Elective Pass/Fail.

400-3 Introduction to English Linguistics. Methods of structuralizing: phonetics, phonemics, morphemics, syntax. Especially recommended for students preparing to teach English to native speakers. Elective Pass/Fail.

403-3 History of the English Language. A survey of the development of the language from Indo-European to modern English with special emphasis on Middle and Early Modern changes. Elective Pass/Fail.

404-3 Middle English Literature Excluding Chaucer. Elective Pass/Fail.

405-3 Middle English Literature: Chaucer. Elective Pass/Fail.

412-3 English Non-Dramatic Literature: The Renaissance. Elective Pass/Fail.

413-3 English Non-Dramatic Literature: The Restoration and Earlier Eighteenth Century. Elective Pass/Fail.

414-3 English Non-Dramatic Literature: The Later Eighteenth Century. Elective Pass/Fail.

417-3 Black Literature. Studies in American and African Black literature, with major emphasis upon contemporary Black expression. Elective Pass/Fail.

421-3 English Romantic Literature. Elective Pass/Fail.

422-3 Victorian Poetry. Victorian poets: Tennyson, Browning, Arnold, and other poets in England. Elective Pass/Fail.

423-3 Modern British Poetry. Elective Pass/Fail.

425-3 Modern Continental Poetry. Representative poems by major 20th century poets of France, Italy, Germany, Spain, Russia, and Greece. Elective Pass/Fail.

426-3 American Poetry to 1900. Trends in American poetry to 1900 with a critical analysis of the achievement of the more important poets. Elective Pass/Fail.

427-3 American Poetry from 1900 to the Present. The more important poets since 1900. Elective Pass/Fail.

436-3 to 9 (3 per topic) Major American Writers. Significant writers of fiction and nonfictional prose from the Puritans to the 20th Century. May be repeated only if topic varies, and with consent of department. Elective Pass/Fail.

438-3 Intellectual Backgrounds of American Literature. The relationship of basic ideas in America to American literature. Elective Pass/Fail.

455-3 Cultural Backgrounds of Western Literature. A study of ancient Greek and Roman literature, Dante's *Divine Comedy*, and Goethe's *1Faust*, as to literary type and historical influence on later Western writers. Elective Pass/Fail.

451-3 Eighteenth Century English Fiction. Defoe through Jane Austen. Elective Pass/Fail.

452-3 Nineteenth Century English Fiction. Victorian novel: 1830-1880. Elective Pass/Fail.

453-3 Modern British Fiction. Elective Pass/Fail.

455-3 Modern Continental Fiction. Selected major works of European authors such as Mann, Silone, Camus, Kafka, Malraux, Hesse. Elective Pass/Fail.

458-3 American Fiction to the Twentieth Century. The novel in America from its beginnings to the early 20th Century. Elective Pass/Fail.

459-3 American Fiction of the 20th Century. Trends and techniques in the American novel and short story since 1914. Elective Pass/Fail.

460-3 Elizabethan and Jacobean Drama. Elizabethan drama excluding Shakespeare: such Elizabethan playwrights as Green, Peele, Marlowe, Heywood, Dekker; and Jacobean drama: such Jacobean and Caroline playwrights as Jonson, Webster, Marston, Middleton, Beaumont and Fletcher, Massinger, Ford, Shirley. Elective Pass/Fail.

462-3 English Restoration and 18th Century Drama. After 1660, representative types of plays from Dryden to Sheridan. Elective Pass/Fail.

464-3 Modern British Drama. Elective Pass/Fail.

465-3 Modern Continental Drama. The continental drama of Europe since 1870; rep-

representative plays of Scandinavia, Russia, Germany, France, Italy, Spain, and Portugal. Elective Pass/Fail.

468-3 American Drama. The rise of the theater in America, with readings of plays, chiefly modern. Elective Pass/Fail.

471-3 Shakespeare: The Early Plays, Histories, and Comedies.

472-3 Shakespeare: The Major Tragedies, Dark Comedies, and Romances.

473-3 Milton. A reading of a selection of the minor poems, of *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, and the major treatises. Elective Pass/Fail.

481-3 Literature for the Adolescent. Criteria for evaluation of literary materials for junior and senior high school, with emphasis on critical approaches in selection of literature. Elective Pass/Fail.

484-3 Non-Print Media and English. Theory and application of film and other non-print media to the study and teaching of English. Especially emphasized is the relationship between print and non-print communications systems and verbal and non-verbal systems. Prerequisite: consent of instructor.

485-3 Problems in Teaching Composition, Language, Literature and Reading in High School.

491-3 Expository Technical Writing. An all-university course designed to teach advanced academic and professional (non-fictional) writing skills. Prerequisite: GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

492-3 to 9 Creative Writing: Senior Writing Project. The topic varies among the writing of poetry, drama, or prose. A directed written project will be submitted at the end of the semester in prose, poetry, or drama. A collection of short stories or poems, a novel or play of what instructors consider to be acceptable quality will fulfill the Senior Project requirement. An alternative to the Senior Project may be an internship in a publishing firm if appropriate arrangements can be made by the department. Prerequisite: consent of the instructor. Elective Pass/Fail.

493-3 to 9 (3 per topic) Special Topics in Literature and Language. Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies. Prerequisite: consent of instructor. Elective Pass/Fail.

495-3 Literary Criticism. Includes both history of criticism and modern criticism. Open only to seniors and graduate students. Elective Pass/Fail.

497-3 to 9 (3 per topic) Senior Honors Seminar. Topics vary yearly. May be repeated as the topic varies. Prerequisite: departmental approval and undergraduate status.

499-1 to 6 (1 to 3, 1 to 3) Readings in Literature and Language. For English majors only. Prior written departmental approval required. May be repeated as the topic varies, up to the maximum of six semester hours.

500-2 Materials and Methods of Research in Literature.

501-3 Old English Grammar.

502-3 Beowulf.

503-3 Old Norse.

504-3 to 9 (3 per topic) Studies in Middle English Literature.

505-3 to 9 (3 per topic) Studies in Chaucer.

511-3 to 9 (3 per topic) Studies in Sixteenth Century English Non-Dramatic Literature.

512-3 to 9 (3 per topic) Studies in Seventeenth Century English Non-Dramatic Literature.

513-3 to 9 (3 per topic) Studies in English Literature of the Restoration.

514-3 to 9 (3 per topic) Studies in Eighteenth Century English Literature.

518-3 to 9 (3 per topic) Studies in British Literature, 1885 to 1914.

519-3 to 9 (3 per topic) Studies in British Literature since 1914.

521-3 to 9 (3 per topic) Studies in English Romantic Writers.

522-3 to 9 (3 per topic) Studies in Victorian Poets.

524-3 Studies in the Metaphysical Poets.

535-3 to 9 (3 per topic) Studies in American Transcendentalism.

536-3 to 9 (3 per topic) Studies in Early Nineteenth Century American Writers.

537-3 to 9 (3 per topic) Studies in Later Nineteenth Century American Writers.

538-3 to 9 (3 per topic) Studies in Twentieth Century American Writers.

543-3 to 9 (3 per topic) Studies in Victorian Non-Fiction Prose.

552-3 to 9 (3 per topic) Studies in the Victorian Novel.

560-3 to 9 (3 per topic) Studies in the English Renaissance Drama.

571-3 to 9 (3 per topic) Studies in Shakespeare.

579-3 to 12 (3 per topic) Studies in Modern Literature.

580-3 Traditional Themes in Literature.

581-3 to 9 (3 per topic) Problems in Teaching English.

585-2 Teaching College Composition.

593-3 to 9 (3 per topic) Special Topics in Literature and Language.

595-1 to 9 Independent Readings.

596-3 Stylistics.

600-1 to 36 (1 to 16 per semester) Dissertation.

Environmental Studies (Courses)

Courses

200-3 Human Society and the Natural Environment. The interaction of current political, economic, and social forms of human behavior with the natural environment. Emphasis is on the way understandings of environmental processes and the dynamics of American society influence our relations with the natural environment.

201-3 Science, Technology and Societal Values. An examination of general societal values relative to the scientific and technological endeavors of selected ancient, medieval, and modern cultures. Special attention will be given to urban environments as case studies of the interaction of science, technology, and other societal values in these cultures.

Family Economics and Management (Major, Courses)

The family economics and management program is a part of the Division of Human Development. Issues in consumer economics, management, and housing are of growing interest to consumers, business, and society. This program is concerned with (1) consumer's role and effectiveness in the marketplace, (2) the family's management of limited or restricted resources, and (3) the social and economical aspects of housing. Two specializations, consumer services in business and family services consultant, are offered leading to the Bachelor of Science degree. A minor in consumer studies is also available.

Bachelor of Science Degree, College of Human Resources

<i>General Studies Requirements</i>	45
GSB 202, 203 and 211 required	
<i>Requirements for Major in Family Economics and Management</i>	32-45
Family Economics and Management 240, 330, 340, 350, 370, 494-4, 499	20
Specialization Requirements	12-25
See Requirements listed below	
<i>Electives</i>	30-43
<i>Total</i>	120

CONSUMER SERVICES IN BUSINESS SPECIALIZATION

This specialization prepares students for professional opportunities in consumer affairs in industry and government. Special emphasis is placed on the role of the consumer in the marketplace and the consumer's relationship to private enterprise and government agencies. A key focus of the program is the application of concepts and the critical analysis of problems and issues affecting the consumer's interests and choices.

<i>Specialization Requirements</i>	12
Family Economics and Management 341, 445, plus three additional hours	9
GSB 346	3
<i>Recommended Electives</i>	43
Accounting 210; Administrative Sciences 170, 301, 304; Clothing and Textiles 352, 104 or 3204, 305; Finance 271, 370; Food and Nutrition 100, 256, 321, 335, 356, GSD 110, 153; Journalism 340, 341; Marketing 304, 305, 329; Radio-Television 467; Speech Communication 221	

FAMILY SERVICES CONSULTANT SPECIALIZATION

This specialization is designed to give students a knowledge and understanding of the family's management and allocation of resources. This specialization prepares students for employment in public and private welfare agencies, cooperative extensions and local government and other programs. The low-income family is of particular interest in this specialization. Elective courses should reflect the student's personal employment goals. The program is tailored to meet the theoretical as well as applied concepts in preparing students to serve individuals and families of various ages, physical abilities, and income levels.

<i>Specialization Requirements</i>	25
Family Economics and Management 320, 351, 430, 445	10
Child and Family 227, 366	6
Clothing and Textiles 352	3
Food and Nutrition 100	3
GSA 209	(3)
Social Welfare 383	3
<i>Recommended Electives</i>	30
Family Economics and Management 331, 451; GSB 230, 341, 346; GSE 236; Black American Studies 330; Psychology 307; Social Welfare 375, 401, 402, 463; Sociology 302, 335, 435.	

Minor in Consumer Studies

The consumer studies minor offered through the Division of Human Development is designed to give students background in consumer economics and home management. The selection of courses is flexible so that course work can be adapted to the special interests of students with diverse goals and backgrounds.

Required courses: Family Economics and Management 350 and 340; 12 hours to be selected from the following: Family Economics and Management 240, 320, 330, 341, 351, 370, 407, 420, 430, 451, 494, 490, and GSB 346. A maximum of 6 hours may be selected from Food and Nutrition 100, Child and Family 227, and Journalism.

Courses

- 240-3 Consumer Resources. An introduction to the resources available to young adults in tackling consumer problems and disputes in housing, automobile care, health services, food purchases, educational expenditures, money management, and other areas of interest to the student. Special attention is given to community and university agencies such as IPIRG, tenant union, chamber of commerce, attorney general's office, and other organizations helpful in resolving problems.
- 320-2 Household Equipment. Materials, construction, selection, operation, and care of equipment to provide maximum satisfaction to the family are identified. Some emphasis placed on design and use of kitchen and laundry areas.
- 330-3 Housing. An examination of the physical characteristics of housing as they relate to family needs, wants, and capabilities, as well as the social and economic factors which affect satisfaction associated with family shelter. Field trip.
- 331-3 Human Environment and Living Space. A study of the living spaces of homes and the relationship of these spaces to the social, economic and aesthetic needs of humans.
- 340-3 Consumer Problems. Study of family income and expenditure patterns, selection of commodities and services, and an analysis of consumer protection devices.
- 341-3 Consumers and the Market. The impact of market and governmental activities on consumers' decision-making. Analysis and evaluation of programs designed to inform and to protect consumers.
- 350-3 Management of Family Resources. A study of factors affecting the management of the home in meeting needs of individuals and creating a satisfying environment for the family. Special consideration given to management of time, money, and energy resources.
- 351-2 Home Management Practicum. Analysis of current management situations and family resources use with practical application of basic principles. Additional costs required. Prerequisite: 350 and consent of chairperson.
- 370-3 Management for Low-Income Families. Job-oriented course for social welfare

careers; selected concepts in family economics and management with application to the low-income family.

380-2 to 6 Special Problems. Selection and investigation of a special problem under personal supervision of departmental faculty, approved by chairperson and instructor. Every semester.

407-1 to 3 Workshop. Designed to aid workers in professions related to use of family resources. Emphasis for each workshop will be stated in the announcement of the course. Every semester.

420-3 Trends in Household Equipment. Design, function, principles of operation, current trends, and ecological problems related to equipment use in household and society are considered. Prerequisite: 320.

430-3 Housing Alternatives. Selected aspects of the housing market and their relationship to changing life styles of households. Structure, operations and performance of the housing market and home building industry, housing finance, and contemporary housing problems and issues are considered. Fall Semester. Prerequisite: 330 or consent of instructor.

445-3 Family and Financial Management. Developments in family financial management and the evaluation of methods and procedures for helping families, with emphasis on the role of the consultant. Case studies and simulation, as well as field problems, are included. Fall semester and alternate summers. Prerequisite: 340 and 350, equivalent, or consent of instructor.

451-3 Household Activity Analysis. A study of work methods and place, as well as the characteristics of the worker, in relation to solving problems of employed, full-time, and handicapped home managers.

480-3 Women in the Home and Labor Market. An evaluation and interpretation of the economic contributions of women in household production and in the labor market. Related issues such as fair employment practices, role conflicts, and legal issues will be considered.

490-1 to 4 Readings. Supervised readings on selected equipment, family or consumer economics, housing, or management topics. Every semester. Prerequisite: six hours of family economics and management and consent of chairperson.

494-1 to 4 Field Experience. Supervised learning experiences in an acceptable employment area. Every semester. Prerequisite: 370 and consent of chairperson.

499-1 Senior Seminar. A study of contemporary issues in the field of family economics and management including the concerns of new professionals entering the field. Not for graduate credit.

500-3 Research Methods.

530-3 Societal Factors in Housing.

535-3 Housing Consumption.

540-3 Consumption Trends.

550-3 Advanced Home Management.

570-3 Seminar in Family Economics and Management.

592-1 to 5 Special Problems.

599-1 to 6 Thesis.

Finance (Department, Major, Courses)

The financial implications of decisions in both business and government are daily becoming more complex. Within the firm, financial considerations permeate the concentrations of research, engineering, production and marketing. Within governmental activities, sophisticated financial techniques are becoming increasingly important. The financial executive thus takes a key role in the successful management of both business and governmental operations.

The finance curriculum offers two areas of specialization to meet the varied interests of students: (1) financial management and (2) financial institutions. The financial management program provides the background for a career in the financial operations of business firms and public institutions. The financial institutions specialization is designed for those interested in the operations of financial intermediaries and financial markets.

Bachelor of Science Degree, College of Business and Administration

<i>General Studies Requirements</i>	45-46
<i>Professional Business Core (See page 61.)</i> ²	47-48
<i>Requirements for Major in Finance</i>	21
Finance 323, 325, 421	9

Specialization (Choose one)	12
Financial Institutions	
Select four: 324, 326, 327, 328, 372, 475	12
Financial Management	
Select one additional upper division accounting course	(3) ¹
Select three: 327, 372, 422, 475, 480	9
Electives	5-6
Total	120

¹Hours shown in parentheses are already included in total hours shown for professional business core.
²Courses outside of major should be selected from: Accounting 341, 321, 322, or 365; Economics 315, 330, 340, or 341.

Courses

- 271-3 Business Law I.** Legal problems arising from situations involving contracts and agency and business organizations. Not pass/fail for business majors. Elective Pass/Fail.
- 300-3 Internship in Finance.** Designed to provide an opportunity to relate certain types of work experience to the student's academic program and objectives. Approved internship assignments with cooperating companies in the fields of finance are coordinated by a faculty member. Not repeatable for credit. Prerequisite: consent of department chairman. Mandatory Pass/Fail.
- 301-1 to 6 Readings in Finance.** Readings in classical and current writing on selected topics in various areas in the field of finance. Prerequisite: consent of department chairman. Mandatory Pass/Fail.
- 320-3 Introduction to Business Finance.** Principal problems of managing the finance function of a business firm. Emphasis on asset acquisition and management, and financial structure planning and management. Prerequisite: Accounting 222, Economics 215, Administrative Sciences 208.
- 323-3 Investments.** Survey of the problems and procedures of investment management; types of investment risks; investment problems of the individual as well as the corporation. Prerequisite: Accounting 210 or 221. Elective Pass/Fail.
- 324-3 Security Analysis.** Application of investment principles to investment policy; analytical principles and techniques; analysis of fixed income corporate securities, of senior securities with speculative features, of common stocks, of government and municipal securities, and of investment company securities. Prerequisite: 320, 323.
- 325-3 Financial Markets.** Operations of capital markets. Sources and uses of funds of financial institutions. Prerequisite: Economics 214, 215, Administrative Sciences 208.
- 326-3 Management of Financial Institutions.** Principal policies and problems which confront top management. Emphasis on liquidity, loans, investments, deposits, capital funds, financial statements, organization structure, operations, personnel, cost analysis, and public relations. Prerequisite: 320; Economics 315 (or concurrent enrollment).
- 327-3 Insurance.** Fundamentals of insurance and risk management including a study of selected insurance contracts and alternative methods of controlling risk exposures. Elective Pass/Fail.
- 328-3 Real Estate.** Problems of real estate ownership, management, financing and development. Elective Pass/Fail.
- 329-3 Advanced Topics in Insurance.** Continuation of Finance 327. Insurance and risk management. Includes a detailed investigation of company practices with regard to rate-making, risk selection and underwriting, and statement preparation. Emphasis is on coverages not studied in basic course.
- 350-3 Small Business Financing.** Financing problems involved in raising venture capital, debt type funds, expansion funds, and government sponsored funding. Budgeting, working capital management, and fixed asset planning are covered. Prerequisite: Accounting 222 and Economics 215 or consent of department. Elective Pass/Fail.
- 370-3 The Legal and Social Environment of Business.** An examination of the legal, social, and political forces that influence business and businessmen. Particular attention to the role of law as an agency of social control in the modern business society. Elective Pass/Fail.
- 372-3 Business Law II.** Legal problems arising from situations involving sales, commercial paper, secured transactions, and property.
- 378-3 Real Estate Appraisal and Finance.** The technique and art of real estate appraisal using various evaluation approaches; an analysis of current practices, and procedures in real estate finance, including the mortgage market, loan policy, and administration of loans. Prerequisite: 328 or consent of department.
- 379-3 Real Estate Law.** A survey of legal principles applicable to real property, including the following: conveyances, titles, land descriptions, rights and duties of ownership, and the law of real estate brokerage. Prerequisite: 328 or consent of instructor.

- 421-3 Management of Business Finance.** The principal problems of managing the financial operations of an enterprise. Emphasis upon analysis and solutions of problems pertaining to policy decisions. Prerequisite: 320.
- 422-3 Acquisitions, Divestments, and Recapitalization.** A study of the issues involved in developing financial plans for external growth, divestment, and recapitalization. The case approach is emphasized in the course. Prerequisite: 320.
- 475-3 Forecasting and Budgeting.** Methods and problems associated with the development of data used in planning financial activities. Prerequisite: 320.
- 476-3 Problems in Labor Law.** Social, economic, and legal evaluations of recent labor problems, court decisions, and legislation. Concern is on long-run legislative impact on manpower planning, dispute settlement, and utilization of employment resources. Elective Pass/Fail.
- 480-3 International Financial Management.** Financial behavior of multinational firms. Emphasis on the modification of conventional financial models to incorporate uniquely foreign variables. Prerequisite: 320 and Economics 315.

Food and Nutrition (Major, Courses)

The food and nutrition program is a part of the Division of Human Development. Students will be required to take field trips in those courses so designated with the expenses pro-rated for each student. Appropriate uniforms will be required of all students enrolling in those courses that involve preparation of food.

Bachelor of Science Degree, College of Human Resources

FOOD AND NUTRITION MAJOR—DIETETICS SPECIALIZATION

These courses give a strong scientific education to those interested in becoming dietitians in hospitals, college dormitories, industrial plants, health clinics, laboratories, or public health and welfare organizations. They meet the requirements of the American Dietetics Association.

<i>General Studies Requirements</i>	45
<i>Requirement for Major in Food and Nutrition with Specialization in</i>	
<i>Dietetics</i>	56-59
GSA 115, 209	(6)
GSB 104, 202, 203, 211	(12) + 1
GSD 112 or Electronic Data Processing 107	(2) - 3
GSD 118	(2)
Administrative Sciences 301	3
Animal Industries 310	3
Chemistry 140a, b	(4) + 4
Child and Family 237	3
Food and Nutrition 100, 156, 256, 320, 335, 356, 360a, 361, 362, 363, 390, 420	33
Vocational Education Studies 321	2
Microbiology 301	4
Psychology 309	3
<i>Electives</i>	16-19
Recommended Electives: GSE 236; Child and Family 227; Food and Nutrition 360b, 372, 373, 421, 490; Microbiology 421, 422; Physiology 300	
<i>Total</i>	120

FOOD AND NUTRITION MAJOR—FOOD AND LODGING SYSTEMS MANAGEMENT SPECIALIZATION

These courses prepare students for positions as food systems managers for restaurants, hotels, school food service, public and private lodging facilities, airlines,

industrial feeding, resorts, institutions, hospitals and clubs. They meet the requirements as set forth by industry, the Council of Hotel, Restaurant, and Institutional Education, and the National Restaurant Association. Through this program in the hospitality field, transfer students from community colleges also will be able to complete their baccalaureate degrees.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Food and Nutrition with Specialization</i>	
<i>in Food and Lodging Systems Management</i>	60
GSA 115, 209	(6)
GSB 202	(3)
Accounting 221, 222	6
Administrative Sciences 304, 385	6
Animal Industries 310	3
Chemistry 140a	(4)
Finance 271	3
Food and Nutrition 100, 156, 256, 335, 360a,b, 361, 362, 363, 371-4, 372, 373	32
Marketing 304	3
Microbiology 301	4
Psychology 320	3
<i>Electives</i>	15
Recommended electives: GSE 236; Chemistry 140b; Child and Family 227, 237; Electronic Data Processing 107; Food and Nutrition 320, 321, 390, 420, 421; Microbiology 421	
<hr/>	
<i>Total</i>	120

FOOD AND NUTRITION MAJOR—FOOD AND NUTRITION SCIENCE SPECIALIZATION

These courses give a strong scientific education to those interested in preparing for graduate study in food, nutrition, or related discipline; for research in university, industrial, or governmental laboratories; or for educational and promotional work in industry or public health organizations.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Food and Nutrition with Specialization</i>	
<i>in Food and Nutrition Science</i>	53
GSA 115, 209	(6)
GSB 202	(3)
Chemistry 222a,b, 340, 341, 352	(4) + 14
Food and Nutrition 100, 156, 256, 320, 356, 390, 420, 421	23
Mathematics 110a,b,	(4) + 1
Microbiology 301, 421, 422	9
Physiology 411a	2
Psychology 211	4
<i>Electives</i>	22
Recommended electives: Chemistry 451a,b; Child and Family 227, 237; Food and Nutrition 490; Health Education 490; Physiology 300, 410a,b, 420.	
<hr/>	
<i>Total</i>	120

FOOD AND NUTRITION MAJOR—FOODS IN BUSINESS SPECIALIZATION

These courses are for students who desire to enter the business field as home service representatives for utility companies, as demonstrators for manufacturers,

or for other educational, experimental, and promotional work with household equipment and foods.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Food and Nutrition with Specialization</i>	
<i>in Foods in Business</i>	53
GSA 115, 209	(6)
GSB 202	(3)
Animal Industries 310	3
Accounting 210 or equivalent	3
Administrative Sciences 301 or 304	3
Chemistry 140a,b	(4) + 4
Family Economics and Management 320, 341, 420	8
Food and Nutrition 100, 156, 256, 320, 321, 335, 356	19
Marketing 304, 363	6
Microbiology 301	4
Radio-Television 467	3
<i>Electives</i>	22
Recommended electives: Child and Family 227, 237; Clothing and Textiles 304; Food and Nutrition 371, 420; Interior Design 131, 300; Radio-Television 300M.	
<i>Total</i>	120

Courses

- 100-3 Fundamentals of Nutrition.** Emphasis on basic principles of food and nutrition in relation to personal health. Elective Pass/Fail.
- 156-3 Fundamentals of Foods.** An introduction to the basic principles and techniques of food preparation.
- 247-3 (1, 1, 1) The School Lunch Program.** (a) Food purchasing; (b) quantity food production; and (c) nutrition practices in the school lunchroom. Elective Pass/Fail.
- 256-3 Science of Food.** Application of scientific principles of food preparation. Prerequisite: 156, Chemistry 140 or equivalent.
- 320-3 Nutrition.** Principles of nutrition in relation to intermediary metabolism and the role of vitamins and minerals. Prerequisite: 100, Chemistry 140 or equivalent.
- 321-2 Food and Nutrition Demonstration.** Emphasis on principles of food and nutrition including food standards and demonstration techniques. Field trip. Prerequisite: 256.
- 335-2 Meal Management.** The selection, purchase, preparation and service of food with emphasis on time and money management. Prerequisite: 256.
- 356-3 Experimental Foods.** Experimental approach to the study of factors influencing the behavior of foods. Individual problems. Prerequisite: 256.
- 360-6 (3, 3) Quantity Food Production.** (a) Use of power equipment, standardized formulas, and techniques of quantity preparation and service of food to large groups (b) Practical experiences in area food service units. Prerequisite: 256 or equivalent.
- 361-3 Food Service Organization and Management.** Policies, budgets, supervision, and personnel in feeding large groups. Field trip.
- 362-2 Institution Equipment and Layout.** Selection and arrangement of various types of institutional food service equipment, including materials, construction operation, cost, use and care. Field Trip. Prerequisite: 361.
- 363-2 Food Purchasing for Institutions.** Principles and methods of purchasing food in quantity. Field trip. Prerequisite: 361.
- 371-2 to 6 Field Experience.** Opportunity for supervised learning experiences in the student's major. Prerequisite: consent of instructor or chairman. Elective Pass/Fail.
- 372-2 Food Systems in the Lodging Industry.** Principles and concepts in developing and operating food production systems in the lodging and tourism industry. Prerequisite: Accounting 210 or equivalent.
- 373-2 Food and Beverage Controls.** Duties and responsibilities of the manager in restaurant, catering, hospitals, and club operations. The use of management methods in budgeting, forecasting, controlling costs, and establishing operational policies in food and beverage cost control. Prerequisite: Accounting 210 or equivalent.
- 390-3 Diet Therapy.** Physiological and biochemical changes in certain diseases with emphasis on those involving nutritional therapy. Prerequisite: 320.
- 420-3 Recent Developments in Nutrition.** Critical study of current scientific literature in nutrition. Prerequisite: 320 or equivalent. Elective Pass/Fail.

421-2 Recent Trends in Food. Critical study of current scientific literature in food. Prerequisite: 320 or equivalent. Elective Pass/Fail.

481-2 to 4 Readings. Supervised readings for qualified students. Prerequisite: 320 or equivalent, consent of instructor and department chairman. Elective Pass/Fail.

490-3 Nutrition and Growth. The study of human nutrition during each phase of the life cycle, prenatal through geriatric. Students elect at least two phases for in-depth study. A general review of basic nutrition is included. Prerequisite: consent of instructor and department chairman. Elective Pass/Fail.

500-3 Research Methods.

515-1 to 4 (1, 1, 1, 1) Seminar.

520-2 Advanced Nutrition.

556-3 Advanced Experimental Foods.

572-2 to 4 (2, 2) Special Problems.

599-1 to 6 Thesis.

Foreign Languages and Literatures (Department, Majors, Courses)

Majors and minors are offered in classical studies, French, German, Russian, and Spanish. Minors are also offered in Chinese, classical Greek, East Asian Civilizations, Japanese, and Latin. A student majoring in a foreign language who has taken four years of that language in high school is expected to begin with 300-level courses and to take more upper level courses. Transfer students planning to major in a foreign language must complete a minimum of 12 semester hours of courses in that language at Southern Illinois University at Carbondale. No courses completed with a grade below *C* will be counted toward fulfillment of the requirements for a major. Every foreign language major must have a departmental advance registration form, signed by the appropriate adviser in the department, before proceeding to college advisement and registration.

Bachelor of Arts Degree, College of Liberal Arts

(WITHOUT SECONDARY SCHOOL TEACHING CERTIFICATE)

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
Though not required, a minor of at least 15 hours is recommended. This may be in another foreign language or in any other department within the College of Liberal Arts, but must be approved by the student's departmental adviser; a minor outside the college must be approved by the dean of the college as well.	
See the Spanish description for a major program which combines a Spanish major with a minor in secretarial and office specialties.	
<i>Requirements for Major in Foreign Language</i>	36 ¹
Except for classical studies, 100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level.	
<i>Electives</i>	25-31
<i>Total</i>	120

¹ See individual language listings for specific requirements.

Bachelor of Arts Degree, College of Liberal Arts

(WITH SECONDARY SCHOOL TEACHING CERTIFICATION)

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
Though not required, a minor of at least 15 hours is recommended. This may be in another foreign language or in any other department within	

the College of Liberal Arts, but must be approved by the student's departmental adviser; a minor outside the college must be approved by the dean of the college as well.

<i>Requirements for Major in Foreign Language</i>	36 ¹
Except for classical studies, 100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level. Foreign Languages 436 will be one of those courses required on the 400-level for majors in French, German, Russian, and Spanish.	
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	1-7
<i>Total</i>	120

¹ See individual language listings for specific requirements.

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45 ²
<i>Requirements for Major in Foreign Language</i>	36 ¹
Except for classical studies, 100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level. Foreign Languages 436 will be one of those courses required on the 400-level for majors in French, German, Russian, and Spanish.	
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	15
<i>Total</i>	120

¹ See individual language listings for specific requirements.

² See catalog section titled Curriculum, Instruction, and Media for specific certification requirements.

Placement. The student who has completed only one year of foreign language in high school normally begins with the first semester course. The student who has successfully completed two years of study in high school of any language currently taught in the department may begin with the second year level without having to take the placement proficiency examination. Those students who have successfully completed three or more years of high school language should consult the departmental adviser for that language.

Minor

A minor in a foreign language is constituted by 18 hours in courses above the first-year level. See individual language listings for specific requirements. State certification requirements, in terms of total semester hours of subject matter courses, may be met in part by counting first-year foreign language courses or by doing additional advanced work.

A minor in classical studies or East Asian civilizations is constituted by 15 hours of courses to be selected in consultation with the appropriate sectional adviser.

Secondary Concentration for Majors in the College of Business and Administration

The Department of Foreign Languages and Literatures participates with the College of Business and Administration's major program in business and administration by offering a secondary concentration of 20-23 hours for those stu-

dents who wish to formulate an academic program leading to a career specialization which combines business and a foreign language.

The secondary concentration varies according to the language chosen, but does not normally exceed 23 hours and involves course work from the 100 through the 400 levels. For specific course requirements in the respective languages, interested students should contact advisers in the Department of Foreign Languages and Literatures.

GENERAL FOREIGN LANGUAGE COURSES

Courses

- 300-3 to 9 (3, 3, 3) Life and Its Expression in the Arts.** Lectures and discussion of a selected theme related to the expression of human experience in the arts of such countries as Greece, Italy, Spain, France, Germany, Russia, China, and Japan. Students will do outside readings in English translations. Lectures will be given by several members of the department of Foreign Languages, and Literatures, and will often be illustrated with films, slides, recordings, and other audiovisual aids. Elective Pass/Fail.
- 436-3 Methods in Teaching Modern Foreign Languages.** Survey of general principles of second-language teaching, based upon insights of modern linguistics and learning-psychology. Followed by intensive practical work in classroom and language laboratory with teachers experienced in the student's specific language field. Required of prospective teachers of modern foreign languages in secondary schools. Prerequisite: concurrent or prior enrollment in 300-level course in French, German, Russian, or Spanish. Elective Pass/Fail.
- 437-1 to 6 Workshop in High School Foreign Language Instruction.** Familiarizes high school teachers with recent curricular developments in foreign language teaching with emphasis on practical classroom application of instructional innovations. Prerequisite: 436 or consent of instructor. Elective Pass/Fail.
- 506-1 to 4 Research Problems—French.**
- 507-1 to 4 Research Problems—German.**
- 508-1 to 4 Research Problems—Russian.**
- 509-1 to 4 Research Problems—Spanish.**
- 535-2 Critical Theory.**
- 566-2 Bibliography and Research Techniques—French.**
- 567-2 Bibliography and Research Techniques—German.**
- 568-2 Bibliography and Research Techniques—Russian.**
- 569-3 Bibliography and Research Techniques—Spanish.**

CHINESE (Minor, Courses)

Minor

Chinese courses above 100 level	18
200 level: 201a,b	10
300 level	8

Courses

- 120-8 (4, 4) Elementary Chinese.** Emphasis on development of reading, writing, speaking, and listening skills. No previous knowledge of Chinese required. Must be taken in a,b sequence. Elective Pass/Fail.
- 201-10 (5, 5) Intermediate Chinese.** Designed to give the student a review of the Chinese language and its expansion, a reading ability in modern prose, and practice in conservation and composition. Must be taken in a,b sequence. Prerequisite: one year of college Chinese or equivalent. Elective Pass/Fail.
- 300-3 Chinese Literature in Translation.** No knowledge of Chinese required. Lectures and collateral readings of representative Chinese literary works in English translation with special attention to the literary forms and thought from Confucius to contemporary China. Elective Pass/Fail.
- 306-2 to 6 (2, 2, 2) Readings in Chinese.** Readings in the contemporary Chinese such as the adaptations of the writings of Tsau Yu, Lau she, Hu shih, and Lu Synn.
- 370-3 Contemporary China: Society and Culture.** Ideology, literature, social institutions, and various cultural aspects of present-day mainland China. Lectures, films and slides, discussion. Taught in English. No knowledge of Chinese required. Elective Pass/Fail.
- 371-3 Chinese Cultural Traditions: An Introduction.** Designed for the student with

only a casual knowledge of China. An attempt will be made to systematically approach the main currents in Chinese history and civilization from neolithic times to the present day. The goal of the course is to provide the new student of China with a specific corpus of facts and ideas that are essential to any understanding of China's significance in the world both past and present. Taught in English. Elective Pass/Fail.

410-3 The Linguistic Structure of Chinese. (Same as Linguistics 411.) Phonology and syntax of Mandarin Chinese. Principal phonological features of major Chinese dialects. Special emphasis on the contrastive analysis between Mandarin Chinese and English. Theoretical implications of Chinese syntax for current linguistic theories. Prerequisite: one year of Chinese or introduction to linguistics. Elective Pass/Fail.

CLASSICAL STUDIES (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

Classical Studies courses and courses from participating departments 36

Original Greek and Latin courses, two years of one language or one year of both 12-16

Electives: Additional Greek, Latin, and/or classical studies courses and/or GSC 330, 231, 232; courses from participating departments (limited to 12 hours): Anthropology 304; Art 307; History 310, 313; Philosophy 304, 470, 471; Political Science 404a 20-24

Minor

Courses to be selected in consultation with adviser, from classical studies, Greek and/or Latin, Classical Studies 270, 271 recommended 15¹

¹18 hours is required for State certification.

Courses

100-2 Greek and Latin in English. Vocabulary building through roots, prefixes, and suffixes. Recommended for students interested in the origin of English words. No knowledge of Greek or Latin is required. Elective Pass/Fail.

270-3 Greek Civilization. An introduction to the life and culture of ancient Greece. Greek contributions to Western Civilization in literature, art, history, and philosophy. Taught in English. Complementary to 271. Elective Pass/Fail.

271-3 Roman Civilization. An introduction to the life and culture of ancient Rome. Rome's function in assimilating, transforming, and passing on the Greek literary and intellectual achievements. Rome's own contributions in the political, social, and cultural spheres. Taught in English. Complementary to 270. Elective Pass/Fail.

310-3 Ancient Art and Archaeology. Survey of the physical remains of ancient civilizations of the Aegean and Mediterranean areas. Special attention to the artistic and architectural achievements of the Greeks and Romans. Occasionally offered overseas. Elective Pass/Fail.

332-3 Classical Drama. Reading several tragedies and comedies of the Greeks and Romans both with a view to enjoying them as timeless works of art and with a view to understanding how they grew out of the societies of classical Greece and Rome. Elective Pass/Fail.

405-2 Greek Literature in Translation. Reading and analysis of selected classical Greek author(s), genre(s), theme(s), such as the role of woman, the social life of the ancient Greeks, etc. Students taking the course for graduate credit will do a critical study of one aspect. Elective Pass/Fail.

406-2 Latin Literature in Translation. Reading and analysis of selected Roman author(s), genre(s), theme(s). Students taking the course for graduate credit will do a critical study of one aspect. Elective Pass/Fail.

441-3 Themes in Greek Tragedies and the New Testament. (Same as Religious Studies 441.) Greek tragedies and New Testament passages from the Synoptic Gospels and the Letters of Paul showing similarities and differences in their treatment of such themes as freedom, law, love, and justice. Not for graduate credit. Prerequisite: 270, 332 or 405 or GSC 330, or 231 and GSC 217 or consent of instructor. Elective Pass/Fail.

496-2 to 8 (2 to 4, 2 to 4) Independent Study in Classical Studies Program. (Same as Anthropology 376, History 396, Philosophy 496, Religious Studies 496.) Normally taken in course of junior and senior years to a total of at least four hours under a professor participating in classical studies program (anthropology, classical studies, history, philosophy, or religious studies). At end of advanced level work, student will submit a research paper. Not

for graduate credit. Prerequisite: consent of instructor and classical studies section head.
Elective Pass/Fail.

GREEK (Minor, Courses)

Minor

Greek courses above 100 level	18
200 level: 201a,b	6
300 and 400 levels	12

Courses

- 130-8 (4, 4) Elementary Classical Greek.** The object of this course is to give students a firm foundation in the grammar, vocabulary, and syntax of Ancient Greek in order to enable them to progress to the reading of the Greek classics and New Testament. Must be taken in a, b sequence. No previous knowledge of Greek required. Elective Pass/Fail.
- 201-6 (3, 3) Intermediate Greek.** Reading and interpretation of selected works by authors such as Xenophon, Plato, Homer, and the New Testament writers. Must be taken in a, b sequence. Prerequisite: 130 or equivalent. Elective Pass/Fail.
- 380-2 to 4 Greek Prose Authors.** Reading of Greek prose. Selections from the historians (Herodotus, Thucydides), orators (Lysias, Demosthenes, etc.), philosophers (Plato, Aristotle), or epistles of the New Testament. Prerequisite: 201 or equivalent. Elective Pass/Fail.
- 381-3 Homeric Epic.** Reading and interpretation of selections from the *Iliad* or the *Odyssey*. Homeric grammar and metrics, epic diction, the conventions of oral poetry. Prerequisite: 201 or equivalent. Elective Pass/Fail.
- 382-3 Greek Drama.** Reading and interpretation of selections from the works of the classical Greek dramatists: Aeschylus, Sophocles, Euripides, and Aristophanes. Stage conventions of the Attic theater. Prerequisite: 201 or equivalent. Elective Pass/Fail.
- 383-3 Early Greek Lyric.** Reading and interpretation of poets of the Archaic Age such as Alcaeus, Sappho, and Pindar. Socio-political background, dialects, meters. Prerequisite: 201 or equivalent. Elective Pass/Fail.
- 415-2 to 6 (2 to 4 per semester) Readings from Greek Authors.** Reading and interpretation of works in Greek not covered in other courses. Maximum of six semester hours toward program. Not for graduate credit. Prerequisite: 201 or equivalent. Elective Pass/Fail.

LATIN (Minor, Courses)

Minor

Latin courses above 100 level (Latin 288 may not be included)	18
200 level: 201a,b	6
300 and 400 level: 320 recommended	12

Courses

- 133-8 (4, 4) Elementary Latin.** The object of this course is to give students a firm foundation in the grammar, vocabulary, and syntax of Latin in order to enable them to progress to the reading of the Latin Classics. No previous knowledge of Latin required. Must be taken in a,b sequence. Elective Pass/Fail.
- 201-6 (3, 3) Intermediate Latin.** Reading from authors such as Livy, Caesar, and Cicero. Must be taken in a, b sequence. Prerequisite: 133 or two years of high school Latin or equivalent. Elective Pass/Fail.
- 288-6 (3, 3) Latin as a Research Tool.** Intensive course designed to impart grammar and vocabulary necessary for a reading knowledge of the language. Also to serve as a review for people who have had some Latin. Development of interpretive and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Open to graduates and undergraduates.
- 320-3 Composition.** The object of this course is to understand and appreciate the structure and style of Latin through composition. Prerequisite: 201 or equivalent. Elective Pass/Fail.
- 384-3 Roman Philosophy.** Selections from Cicero, Lucretius, and Seneca the Younger. Recommended for students with double majors in philosophy and classics. Prerequisite: 201 or equivalent. Elective Pass/Fail.
- 385-3 Medieval Latin.** Selected readings from Latin authors of the Middle Ages. Prerequisite: 201 or equivalent. Elective Pass/Fail.

386-3 Roman Historians. Selections from Caesar, Sallust, Livy, Tacitus, and Suetonius. Recommended for students with double majors in history and classics. Prerequisite: 201 or equivalent. Elective Pass/Fail.

387-3 Vergil. Selections from Vergil's major works, the *Aeneid*, *Eclogues*, etc. Prerequisite: 201 or equivalent. Elective Pass/Fail.

388-3 Lyric and Satire. Reading and interpretation of works by poets such as Catullus, Horace, Juvenal, and Persius. Study of either the lyric or satiric genre. Prerequisite: 201 or equivalent. Elective Pass/Fail.

389-3 Myth, Fable, and Story. Selections from works such as the *Metamorphoses* of Ovid, the *Fables* of Phaedrus, and *Satyricon* of Petronius. Prerequisite: 201 or equivalent. Elective Pass/Fail.

390-3 Roman Comedy. Reading and interpretation of selections from play(s) by Plautus and Terence. Prerequisite: 201 or equivalent. Elective Pass/Fail.

415-2 to 6 (2 or 3, 2 or 3, 2 or 3) Readings from Latin Authors. Flexible reading program of works not covered in other courses. Not for graduate credit. Prerequisite: 201 or equivalent. Elective Pass/Fail.

EAST ASIAN CIVILIZATIONS (Minor)

Minor

Courses in Chinese and Japanese selected in consultation with adviser ... 15¹

¹18 hours is required for State certification.

FRENCH (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

French courses above 100 level	36
200 level: 201a,b (220 recommended; does not usually count toward major or minor)	8
300 level: 320, plus any combination of 300 level courses (one of these courses must be chosen from the following: 310, 311, 330)	14
400 level: any combination of 400 level courses	14

Bachelor of Science Degree, College of Education, or
Bachelor of Arts Degree, College of Liberal Arts
(with secondary school certification)

French courses above 100 level	36
200 level: 201a,b (220 recommended; does not usually count toward major or minor)	8 ¹
300 level: 320, plus any combination of 300 level courses (one of these courses must be chosen from the following: 310, 311, 330)	14
400 level: Foreign Languages and Literatures 436, plus any combination of 400 level courses	14

Minor

French courses above 100 level	18
200 level: 201a, b	8 ¹
300 level: 320, plus any combination of 300 level courses	10

¹With the approval of the French section, one semester of 220 may be counted toward the major or minor, in which case the 400-level requirements would be reduced to 12 hours for the major and the 300-level course requirements would be reduced to 8 hours for a minor.

Courses

123-8 (4, 4) Elementary French. The basic skills of listening, speaking, reading, and writing. No previous knowledge of French is required. Must be taken in a,b sequence. Elective Pass/Fail.

190-5 Review of Elementary French A review course on first year level for students who have had two or more years of high school French or equivalent. Elective Pass/Fail.

201-8 (4, 4) Intermediate French. Composition, oral practice, reading of modern authors; content of course will emphasize the role of French culture in world civilization. Must be taken in a,b sequence. Prerequisite: 123, or 190, or two years of high school French, or equivalent. Elective Pass/Fail.

220-2 to 4 (2, 2) Intermediate French Conversation. Development of oral skills on the intermediate level. Not usually accepted toward major requirement. Prerequisite: 123b or 190 or equivalent. Elective Pass/Fail.

288-6 (3, 3) French as a Research Tool. Reading of French texts with emphasis on grammar as a tool for reading comprehension; development of reading skills in various fields: humanities, social studies, science; development of interpretive and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college French or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

300-3 Image of Women in French Literature. Female characters as they are represented in French literature through the centuries; the development of a psychological and sociological point of view of women through the examination of women's roles in French literature. Conducted in English. Elective Pass/Fail.

310-4 Development of French Literature from the Middle Ages Through the Eighteenth Century. Major literary movements and authors as exemplified in representative works. Elective Pass/Fail.

311-3 Modern French Literature. The themes, structures, and language of some major works of poets, novelists, and playwrights from the early Romantics through the Existentialists and Robbe-Grillet. Elective Pass/Fail.

320-4 Advanced Language Skills. A review of fine points of grammar and polishing of student's syntax through extensive use of translation, free composition, and conversation; readings of French texts as basis for discussions and papers. Prerequisite: 201b, or equivalent. Elective Pass/Fail.

321-3 Advanced Conversation. Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms emphasized through classroom and language laboratory work. Highly recommended for those students with a major in French. Prerequisite: 201b, 220b. Elective Pass/Fail.

330-3 Introduction to Literary Analysis. Examination of the basic elements of literary expression; practice of rudimentary *explications de textes*. Selections for study are taken from important works of French literature and analyses are directed toward developing the students' artistic sensibilities as well as improving their analytical skills. Elective Pass/Fail.

350-2 French Phonetics. Introduction to French phonemics and phonetics involving production of French sounds and English interference. Emphasis on corrective pronunciation. Elective Pass/Fail.

370-3 Modern France. The main philosophical, political, and artistic trends within the nineteenth and twentieth centuries which have contributed to the formation of present day France. Prerequisite: 320 or 321. Elective Pass/Fail.

390-1 to 3 Independent Study in French. Individual exploration of some question, author, or theme of significance within the field of French literature, language, or culture.

410-3 Individualized Language Study. Treatment of problems concerning grammar, idioms, vocabulary, and other language skills in units tailored to the particular needs of the individual advanced level students enrolled in the course. Exercises in writing, understanding, and speaking will be offered with emphasis placed on the active use of the language which the student may need in present or future activities or careers. Elective Pass/Fail.

411-3 Contrastive Analysis: French and English. Study of the phonology, morphology, and syntax of modern spoken and written French, stressing interference areas for English speakers in learning French. Elective Pass/Fail.

412-3 History of the French Language. A survey of the phonological and morphological changes from Latin through Vulgar Latin and Old French to Modern French; study of an original Old French text, such as the *Chanson de Roland* or a romance of Chretien de Troyes. Knowledge of Latin not required. Elective Pass/Fail.

415-3 Literary Stylistics. A study of the aesthetics and theory of French Literary expression. Disciplined stylistic analyses of excerpts from representative works of great French authors. Appreciation of distinctive qualities of each writer's genius. Consideration is given to various stylistic methods. Elective Pass/Fail.

420-3 Medieval and Renaissance Literature. Study of the origins of French literature emphasizing the *Chanson de Roland*, *Tristan*, other courtly romances, and the lyric poetry of Villon, culminating with an examination of the development of the humanistic ideas and ideals of the French Renaissance. Elective Pass/Fail.

430-4 Baroque and Classicism. An in-depth examination of artistic and social writings of baroque and classical literary figures such as Corneille, Racine, Moliere, La Fontaine, Descartes, Pascal, Mme de LaFayette, La Bruyere, and La Rochefoucauld. Discussion, reports, papers. Elective Pass/Fail.

440-3 Literature of the Enlightenment. Study and discussion of the novel, theater, and

philosophic writing of 18th century France as literature and as expressions of the Enlightenment. Major attention given to Montesquieu, Voltaire, Diderot, and Rousseau. Elective Pass/Fail.

450-4 Literary Movements of the 19th Century. Romanticism, Realism, and Naturalism in the novel and theater followed by an examination of the reaction to these movements and of the influence of symbolism. Elective Pass/Fail.

460-4 Studies in Literature of the 20th Century. Examination of the major themes, forms, techniques, and style of novelists from Gide and Proust to Robbe-Grillet and dramatists from Giraudoux to Ionesco and Beckett. Elective Pass/Fail.

470-3 Backgrounds of French Civilization. A study of the events, figures, and movements in France which have influenced her culture and civilization. Elective Pass/Fail.

475-1 to 3 Travel-Study in France. Travel-study project, planned under supervision of French faculty and carried out in France. Amount of credit depending on scope of study. Elective Pass/Fail.

490-1 to 3 Advanced Independent Study in French. Individual exploration of some question, author, or theme of significance within the field of French literature, language or culture.

501-1 to 3 Seminar on a Selected Topic or Author.

520-1 to 3 Literature of the Middle Ages.

530-1 to 3 Literature of the Renaissance.

536-1 Teaching French at the College Level.

539-1 to 3 Literature of the 17th Century.

540-1 to 3 Literature of the 18th Century.

550-1 to 3 Literature of the 19th Century.

560-1 to 3 Literature of the 20th Century.

599-1 to 6 Thesis.

GERMAN (Major, Minor, Courses)

At least one course in the history of Germany or Central Europe is recommended for all students majoring in German.

Bachelor of Arts Degree, College of Liberal Arts

Courses above 100 level	36
200 level: 201a,b	8
300 level: 320-6, 330; 370 or 380	12
400 level: 401; at least one language course (412, 413, or 416); at least one literature course (445, 450, 465, or 485); Foreign Language 436 is recommended	12
German electives (300 or 400 level)	4

Bachelor of Science Degree, College of Education or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)

Courses above 100 level	36
200 level: 201a,b	8
300 level: 320, 330; 370 or 380	12
400 level: 401, 412, three additional hours; Foreign Language 436	12
German electives (300 or 400 level)	4

Minor

Courses above 100 level	18
200 level: 201a,b	8
300 level: 320	6
German electives (300 or 400 level)	4

Courses

126-8 (4, 4) Elementary German. Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of German required. Must be taken in a,b sequence. Purchase of a workbook is required. Elective Pass/Fail.

- 201-8 (4, 4) Intermediate German.** Practice in spoken and written German, combined with review of grammatical structures and reading of modern German authors, with emphasis on cross-cultural understanding. Must be taken in a,b sequence. Prerequisite: 126b or equivalent. Elective Pass/Fail.
- 278-8 (4, 4) Translation Techniques.** Thorough study of most frequent grammatical patterns with particular emphasis on written German. Contrastive study of styles through translation practice and reading of representative texts from a wide variety of fields. Must be taken in a,b sequence. Fulfills second year foreign language requirement. Prerequisite: 126b or equivalent. Elective Pass/Fail.
- 288-6 (3, 3) German as a Research Tool.** (a) Practice in recognizing and interpreting most frequent grammatical patterns and basic vocabulary necessary for reading knowledge of German; (b) concentrated training in translation of specialized literature in student's discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college German or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.
- 300-3 The Individual and Social Change in Modern German Writing.** The selected works of such authors as Nietzsche, Marx, Freud, Mann, Kafka, Hesse, Brecht, Grass, and Weiss in English translation will provide the focal points for class discussions, regular guest lectures, and film presentations. Elective Pass/Fail.
- 302-3 Society and the Arts in 17th Century Germany.** The German Baroque period with respect to the society of that age and the literature, art, and music which it produced. Conducted in English: may count toward the German major only with instructor's approval and when special assignments in German are completed. Elective Pass/Fail.
- 320-6 (3, 3) Advanced Composition and Conversation.** Devoted to increasing the student's command of German. Intensive practice in oral and written composition. Beginning with rather controlled subject matter and progressing to a wider choice of topics. Conducted primarily in German. To be taken in sequence. Required for majors. Prerequisite: 201b or equivalent. Elective Pass/Fail.
- 330-3 Introduction to Literary Appreciation.** Practice in explication of recent literary texts in the major genres (poetry, drama, fiction) to sharpen the student's analytical skill and develop appreciation of literature as an art form. Conducted primarily in German. Required for majors. Prerequisite: 201b or equivalent. Elective Pass/Fail.
- 370-3 German Civilization.** Intensive study of the German-language areas in Europe, concentrating on historical and social antecedents of present-day German (East and West), Austria, and Switzerland, and their effects on modern life in these areas. Conducted in English. May count toward the German major only with consent of instructor.
- 380-3 Modern German Prose.** Introduction to outstanding German prose literature of the 19th and 20th centuries. Attention to historical and social backgrounds. Extensive reading supplemented by lectures and discussions. Conducted in German. Prerequisite: 201b or equivalent. Elective Pass/Fail.
- 401-3 Survey of German Literature Beginnings to 1780.** Readings, lectures, discussions, reports, and research projects on major German figures and movements from the Middle Ages through the Enlightenment. Prerequisite: 330. Elective Pass/Fail.
- 412-3 Contrastive Analysis: German and English.** Contrastive study of German and English, in terms of speech sounds and grammatical structures. Designed particularly to help teachers of German diagnose and remedy the problems encountered by English-speaking students of German. Prerequisite: 320b or consent of instructor. Elective Pass/Fail.
- 413-3 History of the German Language.** Survey of the development of German from its beginnings to the present day, with attention to dialects and "daughter languages" (including Dutch, Yiddish, Afrikaans). Elective Pass/Fail.
- 416-3 Fourth Year Grammar and Composition.** Designed to improve language skills beyond the level of 320. Extensive practice in spoken and written German. Prerequisite: 320b or consent of instructor. Elective Pass/Fail.
- 438-1 Diction for Teachers of German.** Designed to correct residual pronunciation deficiencies for students planning to become teachers of German. While improving their own pronunciation, students are also made aware of the practical techniques of teaching correct German pronunciation to Americans. Elective Pass/Fail.
- 445-4 Age of Goethe.** Intensive and extensive study of the authors, works, and movements of the period spanned by Goethe's life (1749-1832). Lectures, reports. Conducted in German. Prerequisite: 330 or consent of instructor. Elective Pass/Fail.
- 450-3 19th Century German Literature.** German literature from the late romanticists to the naturalists and impressionists. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass/Fail.
- 465-3 German Theater Today.** Plays performed in German-speaking countries at the present. The role of the theater in German culture. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass/Fail.
- 485-2 German Lyric Poetry.** Development of German lyric poetry from Klopstock and

Burger to the present. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass/Fail.

490-1 to 6 (1 to 3, 1 to 3) Independent Study in German. Project-study under supervision of German faculty. Amount of credit depends on scope of study. May be repeated as the topic varies, up to the maximum of six semester hours. Prerequisite: senior or graduate standing and approval of supervising instructor.

493-3 to 9 (3 per topic) Seminars in Special Topics in Literature and Language. Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies. Primarily for undergraduates. Prerequisite: consent of instructor. Elective Pass/Fail.

501-2 to 4 (2, 2) Seminar in Literature, Culture, or Folklore.

502-2 to 4 (2, 2) Seminar in Germanic Linguistics.

510-3 Middle High German.

512-2 Historical Germanic Dialects.

536-1 Teaching German at the College Level.

560-3 German Literature at the Turn of the 20th Century.

561-3 Modern German Novel.

586-3 Das Komische.

590-3 to 9 (3 per topic) Independent Study on Special Topics in Literature and Language.

599-1 to 6 Thesis.

GREEK (Minor, Courses)

(SEE CLASSICAL STUDIES)

JAPANESE (Minor, Courses)

Minor

Japanese courses above 100 level	18
200 level: 201a,b	10
300 level	8

Courses

131-8 (4, 4) Elementary Japanese. Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of Japanese is required. Must be taken in a,b sequence. Elective Pass/Fail.

201-10 (5, 5) Intermediate Japanese. Development of listening, speaking, reading, and writing skills on the intermediate level, with special attention to cultural readings. Must be taken in a,b sequence. Prerequisite: 131b. Elective Pass/Fail.

306-2 to 6 (2, 2, 2) Individual Readings in Japanese. Readings in modern Japanese fiction and non-literary prose. Designed to give students with some Japanese background proficiency in reading modern Japanese. Exact subject matter will depend on individual student's needs. Prerequisite: 201b.

410-3 The Linguistic Structure of Japanese. (Same as Linguistics 412.) Phonology and syntax of the Standard Japanese. Special emphasis on the contrastive analysis between Japanese and English. Typological similarities and lexical borrowings between Chinese and Japanese. Prerequisite: one year of Japanese or introduction to linguistics. Elective Pass/Fail.

LATIN (Minor, Courses)

(SEE CLASSICAL STUDIES)

RUSSIAN (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

Russian courses above 100 level	36
200 level: 201a,b	8
300 level: 306, 320, 310, 305	14
400 level: at least two literature courses	14

**Bachelor of Science Degree, College of Education or
Bachelor of Arts Degree, College of Liberal Arts
(with secondary school certification)**

Russian courses above 100 level	36
200 level: 201a,b	8
300 level: 306, 320, 310, 305	14
400 level: at least one literature course and FL 436	14

Minor

Russian courses above 100 level	18
200 level: 201a,b or 278a,b ¹	6-8
300 level: 305, 306, or 320 plus any combination of 300 or 400 level courses	10-12

¹278, Translation Techniques, is designed for students majoring in fields other than Russian.

Courses

136-8 (4, 4) Elementary Russian. Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of Russian required. Must be taken in a,b sequence. Elective Pass/Fail.

201-8 (4, 4) Intermediate Russian. Continuation of the language structure with practice in oral and written Russian. Must be taken in a,b sequence. Prerequisite: 136 or two years of high school Russian or equivalent. Elective Pass/Fail.

278-6 (3, 3) Translation Techniques. Introduction to translation of material from humanities, social sciences, and sciences, accompanied by grammatical structure; discussion of techniques, procedures, methodology, and art of translation. The course is also designed for students majoring in departments other than foreign languages and literatures. Must be taken in a,b sequence. Prerequisite: 136b or two years of high school Russian or equivalent. Elective Pass/Fail.

288-6 (3, 3) Russian as a Research Tool. Reading of Russian articles with emphasis on grammar as a tool for reading comprehension; development of reading skills in various fields: humanities, social studies, science; development of interpretative and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college Russian or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

305-4 Advanced Conversation and Composition. Improvement of self-expression, oral and written comprehension, free composition and conversation; readings based on the history of Russia, as well as readings of magazine and newspaper articles. Prerequisite: 201 or equivalent. Elective Pass/Fail.

306-3 Intermediate Readings in Russian. Designed to improve skills in reading selections from Russian prose. Prerequisite: 201 or equivalent. Elective Pass/Fail.

310-4 Survey of Russian Literature. Historical survey of major movements, authors, and works in Russian literature. Prerequisite: 306 or approval of department. Elective Pass/Fail.

320-3 Advanced Language Skills. A review of fine points of grammar and polishing of student's syntax. Prerequisite: 201 or equivalent. Elective Pass/Fail.

350-3 Russian Phonetics. Analysis of the sounds of Russian and their manner of production; intonation and stress; levels of speech, oral practice. Prerequisite: 201b. Elective Pass/Fail.

411-3 Russian Stylistics. Writing style in Russian and its application to the development and skill in written expression. Prerequisite: 310 or 320 or equivalent. Elective Pass/Fail.

415-3 Russian Linguistic Structure. Structural analysis of present-day Russian with special attention to morphology and syntax. Elective Pass/Fail.

430-4 Business Russian. A study of the style of commercial language and its application to the development of skill in business correspondence, such as: inquiries, offers, orders, contracts, agreements, as well as documents concerning transport, insurance, and customs. Prerequisite: 201 or 278 or equivalent. Elective Pass/Fail.

465-3 Soviet Russian Literature. Major fiction writers and literary trends since 1917. Lectures, readings, and reports. Prerequisite: 310 or equivalent. Elective Pass/Fail.

470-3 Soviet Civilization. Present day political, economic, and social institutions of the Soviet Union. Readings from contemporary news media. No previous knowledge of Russian required. Elective Pass/Fail.

- 475-2 to 3 Travel-Study in USSR.** Specialized course comprising part of the travel-study program in the Union of Soviet Socialistic Republics. Prerequisite: 201 or equivalent. Elective Pass/Fail.
- 480-4 Russian Realism.** Authors in 19th century Russian literature. Special attention to stylistic devices. Lectures, readings, and individual class reports. Prerequisite: 310 or equivalent. Elective Pass/Fail.
- 485-3 Russian Poetry.** A study of literary trends and representative works of Russian poets. Prerequisite: 310 or equivalent. Elective Pass/Fail.
- 490-1 to 3 Independent Study.** Directed independent study in a selected area. Prerequisite: consent of the Russian section head. Elective Pass/Fail.
- 501-2 Seminar on a Selected Russian Author.**
- 502-2 Seminar in Contemporary Russian Literature.**
- 514-3 History of the Russian Language.**
- 599-1 to 6 Thesis.**

SPANISH (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

Spanish courses above 100 level	36
200 level: 201a,b or 275	5-6
300 level: 306; 310a,b and 315a,b (any 6 of the 12 hours); 320	12
400 level: 415 (Foreign Language 436 may be counted)	12
Spanish electives	6-7

Bachelor of Arts Degree, College of Liberal Arts (with a minor in secretarial and office specialties, for bilingual secretaries)

Spanish courses above 100 level	36
200 level: 201a,b or 275	5-6
300 level: 305, 306, 320, and 370 or 371	10
400 level: 412	12
Spanish electives	8-9

See secretarial and office specialties for a description of minor requirements.

**Bachelor of Science Degree, College of Education or
Bachelor of Arts Degree, College of Liberal Arts
(with secondary school certification)**

Spanish courses above 100 level	36
200 level: 201 a,b or 275	5-6
300 level: 306; 310a,b and 315a,b (any 6 of the 12 hours); 320	12
400 level: 415; Foreign Language 436	12
Spanish electives	6-7

Minor

Spanish courses above 100 level	18
200 level: 201a,b or 275	5-6
300 level: 320, 306	6
Spanish electives	6-7

Courses

- 140-8 (4, 4) First-Year Spanish.** Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of Spanish required. Must be taken in a,b sequence. Elective Pass/Fail.
- 175-5 First-Year Spanish Short Course.** An intensive course on the first-year level, with emphasis on the basic skills of listening, speaking, reading, and writing, and some introduction to the cultures of Spanish-speaking people. Prerequisite: one year of high-school Spanish or equivalent or special permission of instructor. Elective Pass/Fail.
- 201-6 (3, 3) Second-Year Spanish.** Continuation of grammar and composition. Exercises in language laboratory. Selected readings, with special attention to the role of Hispanic culture in world civilization. Must be taken in a,b sequence. Prerequisite: 140b or 175 or two years of high-school Spanish or equivalent. Elective Pass/Fail.

220-2 to 4 (2, 2) Spanish Conversation. Practice in spoken Spanish. Prepared and impromptu group discussions on general topics and everyday situations. Frequent short talks by students. Prerequisite: 140b or 175 or two years of high-school Spanish. Elective Pass/Fail.

273-2 Study in Spain or Latin America. Course taught as part of the summer study abroad program. Prerequisite: one year of college Spanish, or the equivalent. Elective Pass/Fail.

275-5 Second-Year Spanish Short Course. A one-semester course which can be taken in lieu of the Spanish 201a,b sequence. Prerequisite: 175 or 140a,b or equivalent. Elective Pass/Fail.

288-6 (3, 3) Spanish as a Research Tool. (a) Basic grammatical structure and vocabulary necessary to a reading knowledge of the language; (b) finalizes translation skills in the student's discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college Spanish or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

305-2 to 4 (2, 2) Advanced Conversation. Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms emphasized through classroom and language laboratory work. Highly recommended for those students with a major in Spanish. Prerequisite: 201b or 275, and 220b. Elective Pass/Fail.

306-2 Intermediate Readings in Spanish. Improves skills in reading Spanish. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

310-6 (3, 3) Survey of Spanish Literature. The literature of Spain from its beginnings in the Middle Ages to our times. Need not be taken in sequence. Prerequisite: 306. Elective Pass/Fail.

315-6 (3, 3) Survey of Spanish American Literature. Spanish literature in America from the conquest to modern times. Need not be taken in sequence. Prerequisite: 306. Elective Pass/Fail.

320-4 Third-Year Grammar and Composition. Required of students with a major in Spanish and any student planning to teach the language. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

340-3 Applied Spanish for Human Services Workers. Development of language skills for students who plan to become professionals in human services, and who may be working with Spanish-speaking people. Prerequisite: two years of high-school Spanish or one year of college Spanish, or special permission of the instructor. Elective Pass/Fail.

370-2 Spanish Civilization. The cultural patterns and heritage of the Spanish people from earliest times to the present. Class discussion in Spanish will be emphasized in order to improve conversational skills. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

371-2 Latin-American Civilization. Latin-American civilization from pre-Columbian times to the present. Class discussion in Spanish will be emphasized in order to improve conversational skills. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

410-3 Romance Philology. Historical and comparative study of the major Romance languages: their phonology, morphology, and syntax. Elective Pass/Fail.

412-3 Advanced Grammar and Composition. Designed to improve language skills beyond the level of 320. Elective Pass/Fail.

415-3 The Linguistic Structure of Spanish. Phonology and grammatical structure of Spanish. Examination of the features of the principal dialects. Required of all majors. Elective Pass/Fail.

417-3 History of the Spanish Language. Survey of internal and external history, from Vulgar Latin to Modern Spanish. Elective Pass/Fail.

430-3 The Golden Age: Drama. Plays of Lope de Vega, Calderon, Tirso de Molina, and others. Elective Pass/Fail.

431-3 Cervantes. *Don Quijote*. Elective Pass/Fail.

434-2 Colonial Literature in Spanish America. Study of the literature of Spanish America before 1825. Elective Pass/Fail.

450-3 Spanish Literature of the 19th Century. Study of significant literary works of the periods of Romanticism and Realism in Spain. Elective Pass/Fail.

460-4 Spanish Literature of the 20th Century. The main currents and outstanding works in the literature of Spain since 1900. Elective Pass/Fail.

485-4 (2, 2) The Spanish American Short Story. Survey of the genre in Spanish America. (a) From the beginnings through the 19th Century. (b) The 20th Century. Elective Pass/Fail.

486-2 Spanish American Drama. A survey of the development of the genre from the earliest times to the present. Elective Pass/Fail.

487-4 (2, 2) The Spanish American Novel. Survey of the genre in Spanish America. (a) From the beginnings to 1940. (b) From 1940 to the present. Elective Pass/Fail.

488-3 Spanish American Poetry from Modernism to the Present. Survey of the genre from the late 19th century up to the present. Elective Pass/Fail.

490-1 to 3 Readings in Spanish. Directed independent readings in a selected area. Prerequisite: consent of department. Elective Pass/Fail.

- 502-3 to 6 (3, 3) Seminar in Hispanic Linguistics.
- 503-3 to 6 (3, 3) Seminar in Peninsular Spanish Literature.
- 504-3 to 6 (3, 3) Seminar in Spanish-American Literature.
- 521-3 Medieval Spanish Literature.
- 530-2 to 4 (2, 2) Spanish Literature of the Renaissance and Golden Age.
- 535-2 to 4 (2, 2) Spanish American Literature before 1900.
- 540-2 to 4 (2, 2) Spanish Literature of the 18th and 19th Centuries.
- 560-2 to 4 (2, 2) Spanish Literature of the 20th Century.
- 565-3 to 6 (3, 3) Spanish American Literature of the 20th Century.
- 599-1 to 6 Thesis.

Forestry (Department, Major, Courses)

Four specializations are offered within the major in forestry. General studies requirements and a core of professional courses are similar for most specializations. Courses specifically required in the various specializations may not be taken for pass/fail credit by students majoring in the Department of Forestry. The departmental program is accredited by the Society of American Foresters.

Available to the Department of Forestry for teaching and research in addition to resources present on campus are the following: the Crab Orchard National Wildlife Refuge; the Shawnee National Forest; a number of state parks and conservation areas; and the Kaskaskia Experimental Forest. Together these comprise more than a million acres of forest land, all in the vicinity of the University. Also accessible for forest products utilization teaching and research is a wood products plant located near the campus. Forest scientists of the U.S. Forest Service (Forestry Sciences Laboratory) are affiliated with the Department of Forestry, and are authorized to participate in the educational activities of the department.

FORESTRY MAJOR—FORESTRY ENVIRONMENTAL ASSESSMENT SPECIALIZATION

This specialization provides training in the assessment of the environmental impact of forest resources development. Students do not attend the summer camp field studies but receive special field training in the preparation of environmental impact statements.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Forestry with Forestry Environmental Assessment Specialization</i>	75
Forestry Core 200, 201, 202, 240, 300, 301, 331, 409	22
Botany 200, 201; Zoology 118; Chemistry 140a, b; Biology 307	(12) ¹ + 7
Agricultural Industries 204; 3 hours in GSB sociology or substitute; GSB 212	(9) ¹ + 1
GSD 101, 118, 153; Mathematics 140, 283	(11) ¹ + 4
Botany 320 and 443 or 444	8
Forestry 310, 311, 312, 320, 405, 410, 411, 416, 430, 452, 453	28
Restricted Electives	5
<i>Total</i>	120

¹Hours included in total for General Studies requirements.

FORESTRY MAJOR—OUTDOOR RECREATION RESOURCE MANAGEMENT SPECIALIZATION

The program in outdoor recreation resource management provides interdisciplinary

nary training for management of the nation's outdoor recreation heritage. The courses offered are among those recommended by the National Recreation and Park Association. The recreation resource management student does not attend the field study session, but instead travels through selected sections of the United States on a three week tour of outdoor recreation and park facilities in August. During this period, the students pay transportation and living expenses which usually do not exceed \$200 per student. Other courses in this program may also require additional fees for materials and field trips.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Forestry with Outdoor Recreation</i>	
<i>Resource Management Specialization</i>	75
Forestry Core 200, 201, 202, 240, 300, 301, 331, 409	22
Biology 307; Botany 200, 201; Chemistry 140a, b;	
Zoology 118	(12) ¹ + 7
Agricultural Industrial 204; 3 hours in GSB political science	
or substitute; 3 hours in GSB sociology or substitute	(9) ¹
GSC 107, 205; GSD 101, 118, 153; Mathematics 140, 283	(16) ¹ + 4
Plant and Soil Science 328a, b; Political Science 340; Geog-	
raphy 310; Zoology 468a, b	14
Forestry 311, 312, 320, 405, 411, 420, 421, 422T, 423	24
Restricted Electives	4 ²
 <i>Total</i>	 120

¹Hours included in total for General Studies requirements.

²To be elected from social and managerial sciences, planning and design, or park arboriculture, or from a combination of these areas.

FORESTRY MAJOR—FOREST SCIENCE SPECIALIZATION

The forest science specialization is available for students desiring to later on enter a graduate program and concentrate in a given area of knowledge. The program provides maximum flexibility to enable students and their adviser to construct individual programs within the fields of study. The program of study may be selected from any subject area within the competence of the Department of Forestry faculty. Students must have a grade point average of 3.00 or higher in university or college level work to be eligible to enroll in this specialization. New students may enroll upon recommendation of an adviser in the Department of Forestry. Students must maintain a minimum grade point average of 3.00 to remain in the specialization. Students and advisory committees of two departmental faculty members will develop programs of study designed to meet the needs and objectives for the area of specialty selected.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Forestry with Forest Science Specialization</i>	75
Forestry Core 200, 201, 202, 240, 300, 301, 331, 409	22
Forestry and related electives	53 ¹
 <i>Total</i>	 120

¹The student and an academic adviser will select courses designed to meet the needs and objectives for the area of specialty selected.

FORESTRY MAJOR—FOREST RESOURCES MANAGEMENT SPECIALIZATION

The program in forest resources management includes instruction leading to

careers in forest management and production, multiple-use resource management, and the forest products industries. The specialization includes areas of study recommended by the Society of American Foresters. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and preserving our wildlands heritage. A five-week summer camp is required after the junior year to give the student practical field experience. Field study costs per student for living expenses and transportation usually do not exceed \$110. Living costs included here are for those nights spent away from campus. Other costs for equipment and supplies which are required for field study and certain other courses are specified in course descriptions.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Forestry with Forest Resources</i>	
<i>Management Specialization</i>	85
Forestry Core 200, 201, 202, 240, 300, 301, 331, 409	22
Biology 307; Botany 200, 201; Chemistry 140a, b;	
Zoology 118	(12) ¹ + 7
Agricultural Industries 204, 376, 377; 3 hours in GSB	
sociology or substitute; 3 hours in GSB political science	
or substitute	(9) ¹ + 4
GSD 101, 118, 153; Mathematics 140, 283	(11) ¹ + 4
GSE 101a	(1) ¹
Five-week early summer field studies:	
Forestry 300C, 310C, 312C, 320C	6
Forestry 310, 311, 312, 320, 405, 410, 411, 412, 416, 430	26
Restricted electives	16 ²
<i>Total</i>	130

¹Hours included in total for General Studies requirements.
²At least one course (a total of 16 hours) to be selected from each of the following areas: forest science, business administration, law and law enforcement, biological science, physical science.

Courses

- 200-1 Introduction to Forestry.** Acquaints students with the broad field of multiple-use forestry. Special emphasis is given to forestry as a profession. Required field trips cost \$15.00. Elective Pass/Fail.
- 201-3 Trees and Forests: Classification and Silvics.** A study of tree classification and ecology; discussion of forest classification principles and major forest associations in North America, introduction to environmental factors controlling forest composition and distribution. Forestry majors must take 202 concurrently. Extra costs total \$20.00 unless paid in 202. Prerequisite: Botany 200 and 201.
- 202-1 Trees and Forests Laboratory.** Field and laboratory identification of trees and shrubs using leaf, twig, fruit and bark characteristics, and forest type classification. Two Saturday field trips required. Extra costs total \$20.00 unless paid in 201. Prerequisite: Botany 200 and 201.
- 240-4 Soil Science.** (See Plant and Soil Science 240.)
- 300-3 Forest Resources Measurements.** Introductory measurement, statistical and data processing concepts; volume, growth and yield of forest products; methods of sampling forest resources. Field trips. Prerequisite: Mathematics 140 and 283.
- 300C-1 Forest Resources Measurements Field Studies.** Methods of determining volume and quality of forest products, forest resource inventory procedures, growth and productivity studies. Field trips. Prerequisite: 300.
- 301-3 Social Influences on Forestry.** Study of, and practice in, methods used for effecting social change in forestry and allied natural resource fields. Case studies, readings, and actual practice in techniques are used to develop an understanding of historical and current trends. Prerequisite: a course in sociology and a course in political science.
- 310-2 Practices of Silviculture.** Details study of classical concepts and recently developed

techniques utilized in silvicultural treatment of forests. Major emphasis to be placed upon establishments, thinning, timber stand improvement, and regeneration of forest. Prerequisite: 331.

310C-2 Silviculture Field Studies. Field experience for the student in the various facets of silviculture including planting, thinning, harvesting, timber stand improvement and site-growth relationships. Offered only at summer camp. Costs for students are given in forestry description. Prerequisite: 331 and 310.

311-3 Resources Photogrammetry. The science and art of obtaining reliable measurement by means of photographs, detection of disease, insects and fire invasion by remote sensors; and delineation of resources boundaries through interpretation.

312-3 Protection of the Forest Environment. The impact, recognition, and control of destructive enemies within the forest environment. Includes fire, insects, disease, pollution, and climatic factors. Prerequisite: 331, Botany 200, Zoology 118, or consent of instructor.

312C-2 Forestry Protection Field Studies. The prevention and suppression of forest fires, the recognition and control of insect and disease organisms and other destructive agents in the forest. Summer camp only. Cost per student given in the Forestry description. Requires additional expenses of approximately \$20.00 per student. Prerequisite: for forestry resource management option only-331, 202, 312.

313-3 Harvesting Forest Crops. Emphasis is given to lumber sale layouts, sale contracts, and harvest engineering methods. Consideration is given to the environmental impacts of harvesting. Additional cost: \$25. Prerequisite: 310 and 312.

320-2 Recreation in Wildlands Environments. Trends in recreational use of wildland environments and emphasis on state and federal parks and forests. Introductory concepts in recreation management, planning, and interpretation.

320C-1 Forest and Wildlands Recreation Field Studies. Recreational use of forest and adjacent lands with emphasis on parks and national forests. Administration; interpretation; trends in use and development. Offered only at spring camp (costs per student are given in the Forestry description). Requires supplemental purchases of approximately \$2 per student.

331-3 Forest Ecosystems. An analysis and integration of tree growth and of forest structure, material and energy flow, and classification in relation to climatic and edaphic factors to provide an ecological basis for management of forest ecosystems. Prerequisite: 201, 202, 240, Biology 307.

341-3 Forestry Practices. The fundamentals of integrated resource management of timberlands. Management systems, tree and stand measurements. Planting and harvesting methods, multiple-use aspects of forest lands. Field trips. Emphasis on small forest ownerships. Not for graduation credit in forest resources management option.

350-2 Wood as a Raw Material. Structure, identification, and properties of wood. Important species and the significance of wood use to the environment.

381-1 Forestry Seminar. Discussion of problems in or related to forestry.

391-1 to 4 Special Problems in Forest Resources. Independent research sufficiently important to require three hours per week of productive work for each hour of credit. Prerequisite: junior standing and consent of department chairman.

401-3 Fundamentals of Environmental Education. (See Agriculture 401.)

405-2 Forest Management for Wildlife. Interrelations between forest practices and wildlife populations. Emphasis is on habitat requirements of different wildlife species and ways to manipulate the forest to improve wildlife habitats. Prerequisite: forestry major, or consent of instructor.

409-4 Forest Resources Decision-Making. Examines management planning decision-making for multiple-use forests, particularly in the public sector. Reviews concepts useful for analyzing flow-resource problems, emphasizing systems approaches, introduces use of modern quantitative methods to evaluate resource use alternatives. Case studies. Prerequisite: 410.

410-3 Forest Resources Administration and Policy. Nature of administrative organizations and influences on behavior of organization members. Society influences causing changes in forestry related organizations. Policy formation and implementation, including roles of special interest groups. Prerequisite: 301.

411-3 Forest Resources Economics. Introduction to forest economics: Application of micro- and macro-economic principles to forest timber and non-timber production; capital theory; benefit-cost analysis; and economics of conservation. Prerequisite: Agricultural Industries 204 or Economics 215.

412-2 Tree Improvement. Basic theories and techniques of obtaining genetically superior trees for forest regeneration. Prerequisite: senior standing.

414-3 Information Management. The collection of physical, biological, and social variables in the field of forestry through sampling survey. The procedures of data manipulation and calculation and the presentation of graphs and tables.

416-3 Forest Resource Management. The application of business procedures and techni-

cal forestry principles to manage forest properties. Emphasis on integrated resource management for tangible and intangible benefits. Field trips and supplemental purchases approximately \$25.00 per student. Prerequisite: summer camp or consent of instructor.

417-2 Forest Land-Use Planning. Principles of location theory as a basis for determining land use; supply of forest land; population pressure and demand; conservation principles; determination of forest land values; institutional factors influencing forest land-use; forest taxation; special taxes, and capital gains. Taught in alternate years. Prerequisite: 411 or consent of instructor.

418-2 Marketing of Forest Products. The role of marketing in the forest industries; review of economic principles; product policy, planning the product line, pricing, marketing channels, marketing programs, marketing organization, and marketing research as influences on the marketing of lumber, wood products, pulp, and paper. Taught in alternate years. Prerequisite: 411 or consent of instructor.

420-3 Park and Wildlands Management. The management of state and federal parks and recreation areas. A systems approach toward management and decision-making will be emphasized. Requires supplemental purchases of approximately \$5.00 per student. Prerequisite: 320C or 422T.

421-3 Recreation Land-Use Planning. Principles and methods for land-use planning of park and recreation environments with emphasis on large regional parks. Focus on planning process and types of information to gather and organize. Application in group field projects. Prerequisite: 350, 450 or consent of instructor.

422T-2 Park and Wildlands Management—Field Trip. A study of park conditions, visitors, and management practices at selected county, state, and federal park systems in the United States. Course requires a field trip and supplemental purchases costing approximately \$100.00 per student. Prerequisite: 320 or 320C and consent of instructor.

423-3 Environmental Interpretation. (See Agriculture 423.)

430-3 Wildland Watershed Management. Fundamentals of hydrology and water management for wildland watersheds. Emphasis is placed upon the effects of forest management alternatives on the quality, quantity, and timing of water yield. Prerequisite: 331.

431-3 Regional Silviculture. Designed to evaluate the various silvicultural practices as they are commonly employed in various regions of the United States. Offered alternate years. Prerequisite: 310C.

451-2 Natural Resources Inventory. Theory and practical problems in biometrics to obtain estimates of natural resource populations. Use of computers and other advanced techniques. Case studies of inventory procedures. Field trip cost—maximum \$20. Prerequisite: 300 or consent of instructor.

452-2 Forest Soils. Land forms, their geology, and the soils developed on them; the chemical, physical, and biological properties of forest soils; soil classification, and field interpretation as related to forest resources management. Prerequisite: 240 or Plant and Soil Science 240.

453-2 Environmental Impact Assessment in Forestry. Methods of assessing the environmental impact of land-use systems on forest resources and of assessing the impact of forest management systems on environmental quality are presented. Case studies culminating in the preparation of environmental impact statements are emphasized. Field trip cost, \$20. Prerequisite: 300, 310, 313, 312, 430, or consent of instructor.

460-2 Forest Industries. Analysis of raw material requirements, the processes and the products of forest industries. The environmental impact of each forest industry will also be discussed.

492-1 to 4 Special Studies for Honor Students. Research and individual problems in forestry. Prerequisite: consent of the department chairman and a 3.0 minimum grade point average.

494-1 to 6 Practicum. Supervised practicum experience in a professional setting. Emphasis on administration, supervision, teaching, and program leadership in community, school, park and forest, institution, and other recreation settings. Prerequisite: consent of instructor.

500-2 Principles of Research.

501-1 Graduate Seminar.

511-2 Advanced Forest Resources Economics.

512-2 Tree Selection and Breeding.

516-2 Advanced Forest Management.

520-2 Advanced Park Planning.

521-2 Recreation Behavior in Wildlands Environments.

530-2 Forest Site Evaluation.

531-2 Biological Productivity of Forests.

588-1 to 6 International Graduate Studies.

590-1 to 4 Readings in Forest Resources.

593-1 to 4 Individual Research.

599-1 to 6 Thesis.

Geography (Department, Major, Courses)

The Department of Geography offers three programs to undergraduate students. The Bachelor of Arts and the Bachelor of Science are offered through the College of Liberal Arts and the Bachelor of Science degree is offered through the College of Education. A minor is required of all geography majors and should be arranged in consultation with the department. Junior college transfer students interested in geography are encouraged to visit the department to determine possibilities for waivers, proficiencies, and transfer credit substitution.

Honors in geography is a special three semester program available to majors with an overall grade point average of 3.00 or better. Interested students should apply during the junior year to obtain departmental consent prior to initiation of an honors program.

The core of the major program involves 300- and 400-level courses. Geography 300, the first course in a major's program, gives a basic foundation in the topics and fields of research within geography. It acquaints students with the viewpoints and methods of geography, the concepts and theories in geography, and maps and quantitative methods, the basic techniques and tools used by the geographer. In addition to Geography 300, at least three 300-level and three 400-level courses are required. Offered are 400-level courses in resource management and physical environment systems, urban and regional planning, and geographic techniques.

The minor requirement for geography majors may be formed in either of two ways. It may be a regular minor from another department or it may be an interdisciplinary selection of courses created in consultation with the department.

Students minoring in geography must take Geography 300 or GSB 103, three 300-level courses and one 400-level course. Geography 300 has been approved as a substitute for GSB 103 for the General Studies requirement. Social studies students with a 9-hour concentration must take Geography 300 or GSB 103 and complete their concentration with electives from geography.

Bachelor of Arts or Bachelor of Science Degree, College of Liberal Arts

GEOGRAPHY MAJOR—GENERAL

These courses provide the base for those seeking a broad understanding of the field of geography and who have interests in preparing for graduate study or in applying geography in teaching, industry or government.

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
<i>Requirements for Major in Geography</i>	30-32
Geography 300 or GSB 103	3
Any three: Geography 302, 304, 306, 310, or one regional course	8-9
Any 400 level courses	11-12
Electives in Geography selected with the approval of the department	6-8
<i>Minor (or selection of courses complimentary to major)</i>	15
<i>Electives</i>	14-20
<i>Total</i>	120

GEOGRAPHY MAJOR—ENVIRONMENTAL STUDIES AND PLANNING SPECIALIZATION

These courses are for those interested in entering the planning field or in preparing

for graduate study in urban or regional planning or some aspect of environmental analysis.

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
<i>Requirements for Geography Major with Environmental Studies and Planning Specialization</i>	30
Geography 300, 302, 310, 410, 421, 424, 425, 432, and 470a or 471	
<i>Minor Equivalent (15 hours from this list)</i>	15
Economics 214, Community Development, 401, 402, Political Science 325, 352, 415, Sociology 335, 471, Social Welfare 375, Thermal and Environmental Engineering 314, 415	
<i>Electives</i>	16-22
Total	120

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Geography</i>	32-34
Geography 300 or GSB 103 and 443	6
Any three: 302, 304, 306, 310, or one regional course	8-9
Any 400 level courses	11-12
Electives in Geography selected with the approval of the department	5-7
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Minor (or selection of courses complimentary to major)</i>	15 ¹
<i>Electives</i>	2-4
Total	120

¹Students who intend the use of the minor for teacher certification must complete a minimum of 18 semester hours in the minor.

Minor

COLLEGE OF LIBERAL ARTS

A minor in geography requires	15-16
Geography 300 or GSB 103	3
Any three: 302, 304, 306, 310 or one regional course	8-9
400 level courses	3-4

COLLEGE OF EDUCATION

A minor in geography requires	18-20
Geography 300 or GSB 103	3
Any two: 302, 304, 306, 310, or one regional course	5-6
400 level courses	7-8
Geography 443	3

Courses

202-2 Contemporary World Geography: Selected Regions and Places. A geographic study of selected regions and places of particular or current interest in the world. Some attention given to world overview and place names.

212-2 Maps and Mapping. History of cartography; properties, uses, and sources of maps and air photos.

224-3 Geography of Natural Hazards. Damage from natural hazards in the United States is on the rise while loss-of-life has been declining. Losses from earthquakes, floods, hurricanes, tornadoes, drought, hail and urban snow in the United States are reviewed. The

range of alternatives to cope with natural hazards are appraised; and special attention is given to problems characteristic of all natural hazards—warnings, relief and rehabilitation, insurance, and land-use management.

258-1 to 5 Work Experience in Geography. Work experience in tasks specifically related to the field of geography such as are found in cartography and map work, climatology, and resource management. Prerequisite: geography major and consent of department. Mandatory Pass/Fail.

300-3 Introduction to Geography. The nature of geography, the kinds of problems which it investigates, the methods which it uses. Charges not to exceed \$5 for field trips.

302-3 Physical Geography. A study of the earth's physical surface, world distribution patterns of the physical elements, their relationship to each other and their importance to man. Field trip and laboratory work. Charges not to exceed \$5 for field trips. Prerequisite: 300 or consent. Elective Pass/Fail.

304-3 Economic Geography. Study of the spatial distribution and interaction of economic activities. Introduction to locational theory. Prerequisite: 300 or consent. Elective Pass/Fail.

306-3 Cultural Geography. An overview of the geographic viewpoint in the study of the human occupancy of the earth. Aspects of population, settlement, and political geography are treated, and a generalized survey of major world cultural areas is used to integrate course elements. Prerequisite: 300 or consent. Elective Pass/Fail.

310-3 Introductory Cartography. Properties of maps and air photos, their use and sources; map symbols, map projections and map construction. Introduction to the use of quantitative techniques as applied in geographic study. Laboratory. Charges not to exceed \$2 for supplies. Prerequisite: 300 or consent. Elective Pass/Fail.

326-3 Geography of Urban Environments. Explores the historic and present relationship between man and the urban environment, and between urban places and the sites which they occupy. Systems of measuring environmental quality are reviewed along with methods of assessing and forecasting change in the total urban environment. Elective Pass/Fail.

331-2 Man's Modification of Climate. Introduces the basic concepts in the functioning of the climatic environment at the earth's surfaces and develops a holistic view of the way parts and processes of the earth interact through exchanges of energy and water with reference to questions of the human use of the earth. Elective Pass/Fail.

332-3 Oceanography. A systematic review of the world's oceans, with study of the nature of ocean water, the role of oceans in the Hydrologic Cycle, characteristics of ocean basins, the transport of ocean water, materials and energy exchanges in the oceans, and ocean management and resource problems. Elective Pass/Fail.

360-3 Geography of Illinois. Introduces and explores some of the spatial elements of the physical and human geography of the State of Illinois through a comparative analysis of the urban and rural lifespaces. Specific geographic issues and problems are selected by the students for group discussion and analysis. Charges not to exceed \$5 for field trips. Elective Pass/Fail.

362-2 Regional Geography of Europe. Introduces present-day Europe. Survey of the area and an investigation of problems and issues affecting the region. Elective Pass/Fail.

363-2 Regional Geography of Mediterranean Lands and Southwestern Asia. Geography of northern Africa and the near East in a systematic context. Settlement and land use patterns, cultural history and diversity, and contemporary problems. Elective Pass/Fail.

364-2 Regional Geography: Soviet World. Introduction to and survey of the Soviet world and investigation of problems and issues affecting the region. Elective Pass/Fail.

365-2 Regional Geography of Subsaharan Africa. (Same as Black American Studies 380.) Analysis and explanation of emerging spatial pattern of socio-economic development in Africa as most meaningful to the geographer in assessing the continent's transition from traditional to modern political, social, and economic systems. Elective Pass/Fail.

366-2 Regional Geography: Eastern and Southern Asia. Introduces present-day Eastern and Southern Asia. Survey of the area and an investigation of problems and issues affecting the region. Elective Pass/Fail.

367-2 Regional Geography of South America. Analysis of the landscapes of tropical and Andean South America. Historical background of current patterns and problems. Present and future development problems in terms of natural resources, economic, and agriculture systems, and ethnic and settlement patterns. Elective Pass/Fail.

368-2 Regional Geography of Middle America. Interrelationships of groups of humans and their physical and social environments in Middle America. Emphasizes historical depth of perspective. Clarifies the origin of problems in the region. Elective Pass/Fail.

369-2 Regional Geography of Oceania. Introduces present day Oceania. Survey of the area and investigation of specific problems and issues affecting the region. Elective Pass/Fail.

404-3 Spatial Analysis. The purpose of this course is to equip the student with a series of perspectives and tools with which to view spatial phenomena. Emphasis is placed on methodological approaches to the analysis of areal distributions and phenomena. Longitudinal analysis of data is included. Prerequisite: 300. Geography 410 is advisable or consent of instructor. Elective Pass/Fail.

406-2 Advanced Social Geography. Deals with one or more of the following population, settlement, ethnic characteristics, political factors; depending on, and varying with, interests of the instructors. Thus, a student may register more than one time. Emphasis will be directed at familiarizing the student with techniques of analysis, and at developing concepts and principles that underlie understanding of the phenomena and their geographic significance. Prerequisite: 306 or consent. Elective Pass/Fail.

410-4 Techniques in Geography. Geographic applications of basic and advanced statistical and mathematical techniques, including basic descriptive statistics, hypothesis testing, regression and correlation, analysis of variance, and nonparametric statistics. Special emphasis on areal measures: nearest neighbor analysis, etc. Prerequisite: 300 or consent. Elective Pass/Fail.

416-4 Specialized and Computer Mapping. Introduction to computer mapping, mapping from air photos, specialized cartographic problems based on individual student interests. Laboratory. Charges not to exceed \$2 for supplies. Prerequisite: 310 or consent. Elective Pass/Fail.

418-3 Management of Spatial Data Bases. Introduces students to the use of specialized computer programs for the collection, storage, analysis, and mapping of spatial data. A simplified methodology makes the techniques available to students with no previous computer experience. Elective Pass/Fail.

421-2 Urban Geography. Examination of extracity relationships—theory and structure; intra-city relationships—theory and structure, and selected urban problems. Offered once annually. Prerequisite: 300 or consent. Elective Pass/Fail.

422-4 Economics in Geography and Planning. (Same as Economics 425.) Concepts, symbols, language, theory, and elementary mathematics of economics and geography. Individual's preferences, production functions, the firm, markets, optimality, externalities, and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: 300 or consent of instructor. Elective Pass/Fail.

424-4 Natural Resources Planning. Literature in resource management problems. Emphasis on theory, methods of measurement and evaluation concerning implications of public policy. The role of resources in economic development and regional planning, water and related land resource problems, and environmental quality from a multi-disciplinary perspective. Prerequisite: 304 or consent. Elective Pass/Fail.

425-4 Water Resource Planning Simulation. A review of water resource planning theory and practice from a physical, technological, economic, social, and geographical viewpoint. Students design a comprehensive water resource plan including flood control, water supply, water quality, and recreation for a city of 175,000 population. This plan is "Played" against a 50-year trace of hydrologic parameters in a computer simulation. Prerequisite: 424 or consent. Elective Pass/Fail.

427-3 Environmental Perception and Planning. Deals with a description and assessment of the relevance of normative and descriptive theories of decision-making and theories of choice for public policy and environmental management. Studies of the perception of urban environments and other landscapes such as wilderness areas, and perception of and human response toward natural hazards will be considered. Prerequisite: 224 or consent. Elective Pass/Fail.

430-3 Theory of Environment. Exploration of the hypothesis that the physical environment works on local hydrology, soils, and natural vegetation, agriculture, and landforms, through energy and moisture exchanges. Emphasis on model building for comparison of subsystems, to rate effectiveness of contrasting environments, and to project these consequences to environmental management questions. Prerequisite: 302 or consent. Elective Pass/Fail.

431-2 Medical Geography. Deals with the distribution of diseases and attempts to use the operational concepts of human ecology as a point of departure. A brief historical outline and an introduction to public health, epidemiology, and related fields is provided. Problems of communicable and chronic diseases, nutritional deficiency, geochemical relations, biometeorology and medical climatology, environmental pollution, and seasonal disease calendars are emphasized. Taught by Department of Geography staff. Prerequisite: 300 or consent. Elective Pass/Fail.

432-4 Urban Climatology. Energy and moisture budget concepts are developed from basic principles. Microclimatic data, instrumentation and applications stress urban examples. Models of climatic effects and modeling of Man's effects concern city climates mainly. Charge not to exceed \$5 for field trips. Prerequisite: 302 or 430 or consent. Elective Pass/Fail.

432B-4 Hydrologic Climatology. Microclimatic factors which affect the hydrologic events of various climatic regions are treated extensively. Methods of estimating geographic variations in hydrologic relations to climatic and microclimate especially evapotranspiration, are compared and evaluated. Consequences of alternative land uses on climate and hydrology are considered regionally. Charges not to exceed \$10 for field trips. Prerequisite: 302 or 430 or consent. Elective Pass/Fail.

433-3 Advanced Physical Geography. Topics may include landforms, climate, soil or

water. Varies with the interest of the instructor. Prerequisite: 302 or consent. Elective Pass/Fail.

438-3 Applied Meteorology. Analysis of meteorological patterns approached through study of several case histories. Evaluation of meteorological data, air mass and frontal analysis, development of weather forecasts, study of meteorological instruments, clouds, and precipitation patterns. Charges not to exceed \$5 for field trips, \$5 for supplies. Prerequisite: GSA 330 or consent of instructor. Elective Pass/Fail.

439-3 Climatic Change—Inevitable and Inadvertent. The geologic time-scale perspective of major natural events that have affected the theoretical steady-state and factors in contemporary societal practices that have brought about inadvertent climatic modification. An assessment of the means and extremes of parameter values in the geologic time-scale perspective studied will be compared with the documented and present-day climatic parameter means and extremes. Approaches to prognoses for the Earth's future climatic state will be made. Charges not to exceed \$10 for field trips. Elective Pass/Fail.

440-2 Tutorial in Geography. Prerequisite: geography major, senior standing.

443-3 Teaching of Geography. Presentation and evaluation of methods of teaching geography. Emphasis upon geographic literature, illustrative materials, and teaching devices suitable to particular age levels. Charges not to exceed \$3 for field trips. Prerequisite: 300. Elective Pass/Fail.

470-6 to 9 (3, 1 or 2, 2 to 4) Urban Planning. (Same as Political Science 447.) (a) Planning concepts and methods. Charges not to exceed \$8 for field trips. (b) Field problems. (c) Planning and public administration internship (for undergraduate credit only). Prerequisite: consent of department. Elective Pass/Fail.

471-3 Regional Planning. A study of the viewpoints, methodology, and experiences of various types of regional planning in the United States; some attention given to state and national scale planning. Prerequisite: 300 or consent. Elective Pass/Fail.

487-6 (1, 2, 3) Honors in Geography. (a) Honors tutorial; (b) Honors reading; (c) Honors supervised research. Must be spread over the last two years of the undergraduate's career. May be taken in either a,b,c or b,a,c sequence. Prerequisite: consent of department. Elective Pass/Fail.

490-2 to 4 Readings in Geography. Supervised readings in selected subjects. Prerequisite: geography major, advanced standing. Elective Pass/Fail.

500-4 Principles of Research.

510-4 Multivariate Techniques in Geography.

511-2 Philosophy of Geography.

514-2 College Teaching of Geography.

520-2 to 4 Seminar in Physical Geography.

521-2 to 4 Seminar in Economic Geography.

522-4 Economics in Geography and Planning II.

524-2 to 4 Seminar in Cultural Geography.

527-2 to 4 Seminar in Urban and Regional Planning.

570-2 to 4 Planning Internship.

591-2 to 4 Independent Studies in Geography.

593A-2 to 24 (2 to 6 per semester) Research in Physical Geography.

593B-2 to 24 (2 to 6 per semester) Research in Economic Geography.

593C-2 to 24 (2 to 6 per semester) Research in Regional Geography.

593D-2 to 24 (2 to 6 per semester) Research in Cultural Geography.

596-2 to 4 Field Course.

599-2 to 6 Thesis.

600-1 to 32 (1 to 16 per semester) Dissertation.

Geology (Department, Major, Courses)

In the field of geology a student may work toward either a Bachelor of Arts or Bachelor of Science degree.

The Bachelor of Arts degree requires a major in geology but is a flexible program, permitting a student to combine training in geology with courses in other areas of interest, such as peripheral sciences, management, or pre-law. A minor is optional. Having obtained a Bachelor of Arts degree, students may continue their education toward a Master of Science degree in geology, although it may be necessary to absolve deficiencies in physics and mathematics.

The Bachelor of Science degree requires a major in geology and courses in biology, chemistry, mathematics, physics, and science electives. This degree will

ordinarily be pursued by students desiring to do graduate work in geology or to become professional geologists.

Bachelor of Arts Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>Supplementary College of Science Requirements</i>	5
Mathematics 110a,b or 111	(4) + 1
Foreign Languages	(4) + 4
Biological Sciences (Not General Studies)	(6) ³
<i>Requirements for Major in Geology</i>	41-46
Geology 220, 221, 302, 310, 315, 325, 374, 425, and 450 or 454 ⁴	30-34
Chemistry 222 or 224 and 225	7-8 ²
Physics 203a, 253a, or 204a, 254a, or 205a, 255a	4 ²
<i>Electives</i>	24-29
<i>Total</i>	120

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

²Courses will also meet the physical science requirement for the College of Science.

³If courses which have been approved as General Studies substitutes are taken, they will count as a part of the 45 hours in General Studies.

⁴The summer field geology course, Geology 454, should be taken between the junior and senior years.

Bachelor of Science Degree, College of Science

<i>General Studies Requirements</i>	45
<i>Supplementary College of Science Requirements</i>	5
Mathematics 110a,b or 111	(4) + 1
Foreign Languages	(4) + 4
Biological Sciences (Not General Studies)	(6) ⁴
<i>Requirements for Major in Geology</i>	67-68
Geology 220, 221, 302, 310, 315, 325, 374, 415, 425, 454 ³	37
Geology electives	5
Mathematics 150	4
Chemistry 222 or 224, 225	7-8 ²
Physics 203a,b, 253a,b, or 204a,b, 254a,b, or 205a,b, 255a,b,	8 ²
Electives in supporting sciences or technology (to be approved by geology undergraduate adviser)	6
<i>Electives</i>	2-3
<i>Total</i>	120

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

²Courses will also meet the physical science requirement for the College of Science.

³The summer field geology course, Geology 454, should be taken between the junior and senior years.

⁴If courses which have been approved as General Studies substitutes are taken, they will count as a part of the 45 hours in General Studies.

Minor

A minor consists of 16 hours, determined by consultation with the geology adviser.

Courses

Courses with a laboratory may require purchase of a laboratory manual and a supply fee. All courses requiring field trips may have a field trip fee of \$2 to \$7.

220-3 Physical Geology. Introduction to the structure and composition of the earth, and concept of geologic time, and the physical and chemical processes that operate to modify the

earth and its surface. Speculations concerning the origin and early development of the earth. Two lectures and one three hour laboratory. One Saturday field trip required. Prerequisite: high school or college chemistry. Elective Pass/Fail.

221-3 Historical Geology. Principles and methods of interpreting Earth's history. General view and selected examples of Earth's physical, biological, and chemical history. Laboratory and field trips required. Prerequisite: 220; a biology course recommended. Elective Pass/Fail.

302-4 Fundamentals of Structural Geology I. An introduction to structural geology including a study of the forces involved in the deformation of the earth's crust, with special emphasis on the recognition and interpretation of the resultant geologic features. Laboratory and two Saturday field trips required. Prerequisite: 220, Mathematics 110. Recommended: Physics 203, 204, or 205 or concurrent enrollment. Elective Pass/Fail.

310-4 Mineralogy. Rudiments of crystal structure, morphology and symmetry. Introduction to crystal chemistry. Study of the properties, chemistry, occurrence and identification of common rock-forming and economically important minerals. Lecture-laboratory. Prerequisite: 220, Chemistry 222, Elective Pass/Fail.

315-2 Igneous and Metamorphic Petrology. The characteristics and classification of igneous and metamorphic rocks, their origin and geologic distribution. Laboratory. Field trip required. Prerequisite: 310; 415 recommended. Elective Pass/Fail.

325-4 Sedimentology and Stratigraphy. The characteristic features of sedimentary rocks and the physical and chemical processes responsible for their origin and diagenesis. The classification of stratigraphic units, methods of correlation, and paleogeologic reconstruction. Laboratory and field trips required. Prerequisite: 220, 221, 310; 415 recommended. Elective Pass/Fail.

330-3 Geology of Illinois. For non-majors and beginners. The physical nature of Illinois, its landforms, rocks and soil, geologic history of its formation, active processes and hazards today. Resource development, land and water use and management. Laboratory provides for individual interests in collecting, photography, ecology, planning, etc. Elective Pass/Fail.

374-3 Geomorphology. Study of the erosional and depositional processes operating at the earth's surface and the landforms resulting from these processes. Relationship of processes and landforms to the geologic framework is examined. Laboratory. Prerequisite: 220. Elective Pass/Fail.

400-2 Earth Science Seminar. Designed to integrate the basic concepts of earth science gained through courses taken in several departments. Focus on one or more local problems such as development and management of Cedar Creek Reservoir. Prerequisite: GSA 110, upper class standing or consent of department. Elective Pass/Fail.

414-1 to 2 Paleobotany. (See Botany 414.) Elective Pass/Fail.

415-3 Optical Mineralogy. The optical properties of minerals and the use of the petrographic microscope for identification of crystals by the immersion method and by thin section. Lecture, laboratory. Prerequisite: 310, Physics 203b, 204b, or 205b. Elective Pass/Fail.

416-3 X-ray Crystallography. (Same as Chemistry 416.) Introduction to the study, measurement, and identification of unknown crystalline materials by X-ray diffraction techniques (especially the Debye-Scherrer methods). Upon request, non-geology majors may work with unknowns from their own fields of study. Prerequisite: 310, Mathematics 150 or consent. Elective Pass/Fail.

417-3 Isotope Geochemistry. Stable and radioactive isotopes and the applications of isotopic studies to igneous and metamorphic petrology, ore deposits, sedimentology, surface processes, geothermometry, and geochronology. Introduction to isotopic techniques and mass spectroscopy. Laboratory or research project required. Prerequisite: 310, 315 and 325 or consent. Recommended: Physics 203, Mathematics 150 and Geology 419.

418-3 Low Temperature Geochemistry. The application of chemical principles to geologic processes that occur on and near the earth's surface. Lecture, laboratory. Prerequisite: 310, Chemistry 222 or equivalent. Elective Pass/Fail.

419-4 Ore Deposits. The geological and other factors that govern the exploration for and occurrence of metalliferous mineral deposits. Study of the geological settings of the major types of ore deposits. Lecture, laboratories, and field trips. Prerequisite: 302, 315. Elective Pass/Fail.

420-3 Petroleum Geology. The geological occurrence of petroleum including origin, migration, and accumulation; a survey of exploration methods, and production problems and techniques. Laboratory study applies geological knowledge to the search for and production of petroleum and natural gas. Prerequisite: 221, 302. Elective Pass/Fail.

425-4 Invertebrate Paleontology. Principles of paleontology and a survey of the important invertebrate phyla and their fossil representatives. Laboratory. Field trips required. Prerequisite: 221, a biology course. Elective Pass/Fail.

428-3 Paleoecology and Environments of Deposition. Characteristics, distribution, and classification of recent and ancient environments. Criteria for recognizing ancient environments. Sedimentological and paleoecological approaches. Recognition of ancient environments and environmental associations. Laboratory. Field trips required. Prerequisite: 425, 325 or concurrent enrollment. Elective Pass/Fail.

430-3 Physiography of North America. A regional study of North American landforms

and their origins. The approach designed to give interaction among students, stimulus in organization and presentation of material and library competence. Plan a trip for optimum view of North American physiography. Prerequisite: 220. Elective Pass/Fail.

435-3 Hydrogeology. A problem-solving oriented course which covers the analysis and interpretation of the distribution, origin, movement, and chemistry of ground water. Laboratory. Prerequisite: 220, Mathematics 250. Elective Pass/Fail.

436-4 Elementary Exploration Geophysics. Theory and practice of geophysics as applied to the exploration and development of natural resources. Laboratory involves use of geophysical instruments and interpretation of data. Field trips required. Prerequisite: 220, Mathematics 150. Elective Pass/Fail.

437-3 Field Course in Geophysics. Use of geophysical equipment for collection, analysis and interpretation of seismic, gravity, magnetic, electrical, and other types of geophysical data. Prerequisite: 436 or consent.

440-1 to 4 Advanced Topics in the Geological Sciences. Individual study or research or advanced studies in various topics. Prerequisite: advanced standing and consent of instructor. Elective Pass/Fail.

445-3 Museum Studies in Geology. History, nature and purpose of geology in museums, relationships of geology to other museum disciplines, application of geologic methods to museum functions, preparation and preservation of specimens; nature, acquisition and utilization of geologic collections in museums, role of research in museums.

449-1 to 2 Internship. Credit for professional experience in the geological sciences. Arrangements made with chairman. Prerequisite: advanced standing. Elective Pass/Fail.

450-2 Introduction to Field Geology. Introduction to field techniques, principles of geologic mapping and map interpretation. Field trip fee \$5.00. Prerequisite: 302, 315 or concurrent enrollment. Elective Pass/Fail.

454-6 Field Geology. Advanced field mapping in the Rocky Mountains, including problems in stratigraphy, structure, petrology, paleontology, geomorphology, and economic geology. Transportation fee \$100.00, supplies \$6.00. Prerequisite: 302, 315; 450 recommended. Elective Pass/Fail.

455-3 Engineering Geology. (Same as Engineering 455.) An examination of problems posed by geology in the design, construction, and maintenance of engineering works. Topics studied include ground water, land subsidence, earthquakes, and rock and soil mechanics. Two term papers and a field trip required. Prerequisite: 220 or consent. Elective Pass/Fail.

460-3 Geological Data Processing. Computer applications to geological problems including the processing and programming of data and the interpretation and evaluation of results. Lecture, laboratory. Prerequisite: Engineering 222 or Computer Science 202. Elective Pass/Fail.

462-3 Fundamentals of Structural Geology II. Intermediate topics in structural geology including strain theory, field strain analysis, geometry of complex mesoscopic structures and introduction to dislocations, deformation history, and microfabric analysis. Hypotheses and orogenesis are discussed and evaluated. Lecture and assigned problems only. Prerequisite: 302 or equivalent.

465-3 Evolution of Orogenic Belts. A combination of lectures and seminars in which the structural and petrological development of specific orogenic belts is investigated in detail. Prerequisite: 302, 315 or equivalent. Elective Pass/Fail.

470-3 Earth Science for Teachers. Designed to help each teacher improve knowledge and skills of the earth sciences, develop units, laboratories, and resources for the classroom. Subjects range from rocks and landforms to weather; from local geology to specific resource people. Prerequisite: teaching experience. Elective Pass/Fail.

476-3 Pleistocene Geology. Deposits, stratigraphy, and history of the Pleistocene epoch. Evidence for differentiating and dating the glacial and interglacial sequence examined including deep sea cores, soils, magnetic studies. Required field trips. Prerequisite: 220, 221. Elective Pass/Fail.

478-3 Environmental Geology. Identification of geological conditions and processes which affect man's use of the environment: earth materials and structure, climate, water, topography, active geologic processes, hazards; impact of extraction, construction, water collection and control, and waste disposal. Introduction to aims and responsibilities of government regulatory agencies, environmental groups, and industry. Lecture, laboratory, field trips, individual projects, and reports. Prerequisite: 220 or equivalent and advanced standing.

480-3 Geology of Coal. Geology as related to exploration, development and mining of coal; stratigraphy, sedimentation and structure of coal deposits; type of coal basins and their tectonic setting; concepts of cyclical deposition in coal basins; origin of splits and partings in coal seams; relationship of modern environments and ancient coal-forming environments; structural problems relevant to exploration and mining of coal; methods of resource evaluation. Three 1-hour lectures/week; five ½ day field trips.

482-3 Coal Petrology. Structural features and microscopy of coal seams. Origin and alteration of coal constituents. Includes field trips, study of coal specimens, and techniques. Prerequisite: 220 and 221 or consent of instructor. Elective Pass/Fail.

484-3 Palynology. (Same as Botany 484.) Taxonomy, morphology, stratigraphic distribu-

tion, and ecology of fossil pollen, spores, and associated microfossils. Prerequisite: 220, 221, or consent of instructor. Elective Pass/Fail.

500-1 to 2 Teaching for Geology Graduate Students.

510-3 Advanced Sedimentation.

513-2 Advanced Geologic Data Analysis.

516-3 Industrial Rocks and Minerals.

518-3 Clay Mineralogy.

520-3 Igneous Petrology.

521-3 Metamorphic Petrology.

522-3 Sedimentary Petrology—Siliciclastics.

523-3 Sedimentary Petrology—Carbonates.

526-3 Advanced Topics in Applied Paleocology.

527-3 Micropaleontology.

529-1 to 3 (1 per topic) Advanced Topics in Applied Invertebrate Paleontology.

535-3 Advanced Hydrogeology.

537-3 Applied Seismology.

538-3 Gravity and Magnetism.

542-2 (1, 1) Seminar in Geology.

565-3 Rock Deformation and Structural Systems.

578-3 Fluvial Geomorphology.

579-3 Advanced Geomorphology.

582-3 Advanced Coal Petrology.

599-1 to 6 Thesis.

Guidance and Educational Psychology

(Department, Major [Graduate Only], Courses)

The Department of Guidance and Educational Psychology does not offer an undergraduate major but offers courses for undergraduate credit which serve as electives for students in other programs.

Courses

100-2 Decision Making for Career Development. Examination of factors relating to career decision making. Emphasis on the continuous use of learned processes and information in vocational development. Supplementary group guidance and counseling sessions required.

307-3 Educational Psychology. The basic factors involved in the teaching-learning process including student characteristics, motivation, learning, and teacher-student relationships. The course activities are intended to prepare the student with a basic foundation in educational psychology for the purpose of teaching.

380-1 to 4 Practicum in Instructional Roles. One semester hour of credit for every three modules selected. Application of educational psychology in a practical teacher-learner situation. Class members conduct actual instructional activities with individuals or groups of students. Field activities are required and the students may be required to purchase additional materials not to exceed \$20. Prerequisite: consent of instructor.

412-3 Human Behavior and Mental Health. A study of the principles of human needs, mechanisms of adjustment, and factors and conditions in life that tend to affect mental health. Prerequisite: junior or senior standing.

422-3 Assessment and Classroom Models. Classroom tests, measurement, standardized tests, grading, and the research knowledge in the application of ability grouping, team teaching, open education, and individualization.

442-3 Introduction to Counseling and Guidance Systems. The following topics will be covered: purposes of counseling and guidance; counselor roles in various settings; approaches to counseling; guidance activities; and application of the above.

481-2 to 4 (2, 2) Seminar. Conducted by staff members and distinguished guest lecturers on pertinent topics. Prerequisite: consent of instructor and department.

491-1 to 6 Special Research Problems—Individual Study. For majors. Formulating, investigating, and reporting on a problem in the area of guidance. Prerequisite: advanced standing and consent of department.

494-3 Child Counseling Practicum. A combined seminar, laboratory, and field experience representing the central focus of the program in elementary counseling. Enables the student to practice the role of the counselor under close supervision. During the semester, the student is required to spend 30-50 hours in actual counseling and consulting. Prerequisite: 537 and 3 additional hours from substantive course work in the guidance and counseling program.

494B-3 Adolescent and Adult Counseling Practicum. Practice of counseling skills with

an adolescent or an adult population in varied settings. The professional setting depends on the student's interest area. Individual and group supervision are provided. Use of tape recorder is required. Prerequisite: 538 and 3 additional hours from substantive course work in the guidance and counseling program.

494C-3 Career Planning Practicum. Supervised experience in handling career development experiences at elementary, secondary, or college levels. Application of theoretical models to program development is stressed, including presentation of relevant lessons, handling of group guidance activities, and conducting individual career development counseling sessions. Intern experience in public school or college settings equal to one day per week is required. Prerequisite: 542 and 3 additional hours from substantive course work in the guidance and counseling program.

494D-3 to 6 (3, 3) Practicum in School Psychology. Observation and participation in case conferences related to the development of psycho-educational assessment and planning, including teacher and parent consultations, field observations, and psychometric applications. Prerequisite: consent of instructor.

502-3 Basic Statistics.

506-4 Inferential Statistics.

507-4 Multiple Regression.

511-3 Instructional Psychology.

512-3 Affective and Cognitive Behaviors at the School Level.

513-3 Psychological Trends in Education.

515-3 The Psychological Aspects of Instructional Design.

518-3 Psychology of the Classroom.

521-3 Analysis of Classroom Behavior—Consultative Practices for School Personnel.

530-4 Standardized Testing: Use and Interpretation.

531-3 Principles of Measurement.

532-3 Individual Intelligence Theory.

537-4 Counseling with Children: Theory, Techniques, and Practice.

538-4 Interpersonal Relations: Theory and Practice.

540-3 Problems, Issues, and Trends in School Guidance and Counseling.

542-4 Career Development Procedures and Practices.

543-3 Group Theory and Practice.

546-4 Personality Assessment.

547-3 Implementation of Guidance Services.

551-3 The Supervision of Practicum.

555-3 to 6 (3, 3) Seminar in School Psychology.

562-6 (3, 3) Human Development in Education.

567-2 to 9 (2 to 6 per semester) Topical Seminar in Educational Psychology.

568-1 to 12 (1 to 6 per semester) Topical Seminar in Counseling and Guidance.

570-3 Humanistic and Behavioral Theories in Education.

580-2 to 12 (2 to 6 per semester) Doctoral Seminar in Educational Measurement and Statistics.

592-1 to 8 (1 to 6 per semester) Independent Study and Investigation.

593-1 to 4 Individual Research.

594-1 to 6 Advanced Practicum.

595-4 to 8 (4, 4) Internship in the Psychology of Teaching.

599-1 to 6 Thesis.

600-1 to 32 (1 to 16 per semester) Dissertation.

Health Education (Department, Major, Courses)

The Department of Health Education offers two specializations within the health education major and three programs of minimal professional preparation. The two specializations are:

1. Health Education in Secondary Schools. For those planning to teach or supervise health education in the secondary schools.
2. Health Education in Elementary Schools. For those planning to teach or supervise health education in the elementary schools.

The three minimal professional preparations are:

1. Health Education in Secondary Schools. For those certified to teach in Illinois secondary schools who wish minimal preparation to teach health education.
2. Health Education in Elementary Schools. For those certified to teach in Illinois elementary schools who wish minimal preparation to teach health education.

3. Driver Education. For those planning to teach driver education in Illinois secondary schools.

These specializations in general, constitute minimal preparation for the positions listed. Consequently, all candidates are strongly urged to complete additional work in the field.

Bachelor of Science Degree, College of Education

<i>General Studies Requirements (must include GSE 201)</i>	45
<i>Requirements for Major in Health Education</i>	32
Health Education in Secondary Schools Specialization	
Health Education 305, 312, 313S, 326, 334, 355, 401, 405, 471 plus 7 elective hours with Health Education 301 as a recommended elective.	
Health Education in Elementary Schools Specialization	
Health Education 305, 312, 313S, 334, 350, 355, 401, 405, 450, and Curriculum, Instruction, and Media 213 plus 3 elective hours with Health Education 301 as a recommended elective.	
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	19
<i>Total</i>	120

The three minimal professional preparations requirements for Illinois teachers are:

- Health Education in Secondary Schools: Health Education 301, 305, 312, 334, 355, 405, and 460
- Health Education in Elementary Schools: Health Education 301, 305, 312, 334, 350, 355, 405
- Driver Education: Health Education 302S, 313S, 442S, 443S, 475S, plus three hours of electives from the following: Health Education 323S, 334, 445S, 470S, 480S, 481S, 495S

Courses

- 301-3 Advanced Concepts of Health.** Interrelatedness and interdependence of health as a total concept. Concepts of health and health education within the context of an option-expanding world are examined. Emphasizes role of the individual in assuming responsibility for one's own health behavior as well as education for a health-activated citizenry.
- 302S-3 Driver and Traffic Safety Education—Introduction.** A beginning course that deals with the highway transportation system, traffic problems, the driving task, perception and implementation of the driver education classroom program. Observation of the teaching environment is included. Prerequisite: a valid driver's license.
- 305-3 Principles and Foundations of Health Education.** An introductory professional course in the field, designed to implement the evolving concept that health education is both content and process; major concepts for a variety of teaching-learning approaches in school and other community settings are considered; health careers and opportunities in field are described.
- 311-3 Human Growth and Development.** An overview of human development from conception through senescence. Designed for professional personnel who will be concerned with planning health programs for groups representing broad age ranges. Emphasis will be on physical, mental, and social dimensions of growth and development.
- 312-3 Emotional Health.** Concepts of positive emotional development in terms of influence in the classroom and other community settings.
- 313S-3 Introduction to Safety Education.** Introduces the principles and fundamentals of safety education. Concerns safety as a social problem and considers major accident areas, accident causes, liability and analyzes possible solutions to accident problems.
- 323S-3 Methods and Materials in Safety Education.** Learning strategies used in teaching safety for elementary and secondary school levels. Emphasizes selection and design of materials participation and demonstration.
- 326-2 Measurement, Testing, and Evaluation in Health Education.** Approaches to

construction, selection, and use of various kinds of test instruments, primarily in the cognitive domain. Other types of evaluative techniques introduced.

330-3 Consumer Health. Federal and state legislation affecting consumer health; official watchdog agencies on consumer health; non-official agencies (AMA, CU, etc); health and medical protection by insurance, group practice, prepayment, etc, false and misleading advertising in health and medicine; cultists' and faddists' effect on consumer health.

334-2 to 3 Standard First Aid. Provides students with first aid knowledge and skill competencies necessary to care for injuries and meet emergencies. The two hour course provides American National Red Cross standard first aid and personal safety program certification. The three hour course leads to instructor authorization in the American National Red Cross program and includes ANRC procedure. Students enrolling in the two hour course will meet in class session two periods per week; students enrolling in the three hour course will meet an additional hour per week.

350-3 Health Education in the Elementary School Curriculum. Acquaints the prospective teacher in the elementary school with fundamental processes, techniques and instructional materials related to health education.

355-3 Introduction to Community Health. Organization and administration in local, state, and national official and non-official health agencies, their purposes and functions, and an overview of methods for meeting community health needs and for solving community health problems.

400-3 Health Appraisal of School Children. The teacher as a member of the health team in recognizing common health deviations. Emphasis on helping each child realize his full health potential.

401-3 Epidemiological Approaches to Disease Prevention and Control. Principles and practices in the cause, prevention, and control of diseases in various community settings.

402-3 Death Education. Designed to prepare educators to conduct learning experiences about death and dying in a variety of school, college, medical care, and community settings. Stress will be placed on developing brief, functional curricula and usable, imaginative teaching-learning materials, and on evaluating resource materials for use in educating at various levels of maturity.

405-3 Sex Education. Examines various programs of sex and family life education in schools, recognizing a range of community attitudes.

407-3 Drug Education. Meets requirements of Illinois state law for education concerning drugs including alcohol for grades K-12. Explores motivations behind use and abuse of drugs. Offers experiences in development of curriculum and teaching approaches and material.

434-3 Advanced First Aid and Emergency Care. Meets the needs of those in positions where a complexity of first aid and emergency care procedures are needed. American National Red Cross and Illinois Heart Association cardiopulmonary resuscitation instructor authorizations provided. Consent of instructor required.

442S-5 Driver and Traffic Safety Education—Practicum. Provides prospective teachers with simulation, range, and on-road teaching experience with beginning drivers. Students may be required to purchase materials not to exceed \$15. Prerequisite: 302S.

443S-3 Driver and Traffic Safety Education—Program Administration. Emphasizes administration, reimbursement, scheduling, public relations, planning, and evaluation of driver education programs. Prerequisite: 442S or consent of instructor.

445-2 to 6 (2 to 3, 2 to 3) Contemporary Specialized Laboratory Techniques. Provides teachers and other highway safety personnel with instructional experience in (a) motorcycle safety, (b) emergency evasive and pursuit driving. Prerequisite: 302 or consent of instructor. Maximum of 6 semester hours may be obtained either graduate or undergraduate.

450-3 Health Programs in Elementary Schools. Orientation of teachers to health programs and learning strategies. Designed for elementary education majors.

460-3 Health Programs in Secondary Schools. Orientation of teachers to health programs and learning strategies. Designed for secondary education majors. Open to non-health education majors only.

461-3 Health Education Summer Conference. A different focal theme each year; e.g., mood modifying substances, ecology, human sexuality, emotional and social health dimensions. Information, ideas, and concepts are translated into teaching-learning materials and approaches; continuing opportunity for interaction between prospective and experienced teachers.

462-3 Health Education Summer Conference. Conference style and format are similar but themes change.

463-3 Health Education Summer Conference. Conference style and format are similar but themes change.

470S-3 Highway Safety as Related to Alcohol and Other Drugs. Relationship between alcohol and other drugs and traffic accident causes. A review of education programs designed to minimize drug related accidents. Prerequisite: advanced standing or consent of instructor.

471-2 Health Education Instructional Designs. Analysis of existing health education

curricula with emphasis on student development of instructional designs and modules. Students will prepare, utilize, and critique materials. Prerequisite for student teaching in health education. Prerequisite: 305.

475S-3 Traffic Law Enforcement and Planning. Acquaints safety and driver education teachers and highway safety personnel with purposes of traffic law enforcement and engineering, and methods used to fulfill these purposes. Emphasis is placed upon ways of improving existing services and coordinating efforts of official and non-official agencies concerning traffic problems. Prerequisite: 302S or consent of instructor.

480S-3 Traffic and Driver Education Program Development. Acquaints students with curriculum innovation, current philosophy, learning and teaching theories, and instructional designs. Students will develop learning packages and modules. Prerequisite: 443S or consent of instructor.

481S-3 Traffic and Safety Education—Evaluation Techniques. Emphasizes methods of evaluation as applied to traffic and safety education programs. Prerequisite: 480S or consent of instructor.

483-3 Community Health Administration in the United States. Background and development of community health administration structures in the United States; the dynamics and trends evolving from current health and medical care programs and practices.

485-3 International Health. Health beliefs, values, and practices of peoples in various cultures as related to a total way of life of potential value to both prospective teachers and students in other fields.

488-1 to 3 Environmental Dimensions of Health Education. Application of the principles of learning to understanding Man interacting with his environment. Emphasis placed upon individual and community responsibilities for promoting environmental health. Rural and municipal sanitation programs and practices are included.

489-3 Introduction to Vital Statistics. An introduction to bio-statistics; examination of theories of population projections; collection, organization, interpretation, summarization, and evaluation of data relative to biological happenings with emphasis on graphic presentation.

490-2 to 6 Field Experiences in School, Community Health or Safety Education. Field observation, participation, and evaluation of current school or community health education or safety programs in agencies relevant to student interests. Prerequisite: consent of instructor.

491-3 Health Teaching/Learning: School and Community. Teaching and learning strategies at secondary school levels and in other community group settings. Opportunities to examine and observe a variety of educational strategies applicable to health education.

495S-3 Driver Education for the Handicapped. Methods and techniques in the use of assistive equipment and program materials for teaching handicapped persons how to drive. Prerequisite: advanced standing or consent of instructor.

500-4 Community Organization for Health Education.

510-3 Curriculum in Health Education.

511-3 Health Education Conference Practicum.

515-3 Review of Current Literature in Health Related Fields.

520-3 Special Projects in Health Education.

526-3 Evaluative Approaches to Health Education.

530S-3 Research in Traffic Safety.

533A-4 Human Ecology I.

533B-4 Human Ecology II.

536-3 Professional Preparation in Health Education.

550S-3 Current Developments in Traffic and Safety Education.

555S-3 Traffic Safety Management.

572-3 Coordination and Supervision of School Health and Safety Programs.

590-8 Practicum in Community Health.

597-2 (1, 1) Seminar in Health Education.

598-3 Institute: Writing Research Proposals.

599-1 to 6 Thesis.

600-1 to 32 (1 to 16 per semester) Dissertation.

Higher Education (Department, Major [Graduate Only], Courses)

The Department of Higher Education does not offer an undergraduate major or minor but it does offer certain courses for undergraduates who wish to learn about higher education, its history, institutions and organization, and current issues. Undergraduates interested in this area are advised by their regular academic advisers.

Courses

- 399-4 (2, 2) Problems of Higher Education in the United States.** An introduction to the broad understanding of higher education in the United States designed to provide perspective. (a) Historical development with an emphasis on such basic concepts as lay control, academic freedom, and institutional response to social needs. (b) A problem approach is utilized to develop an understanding of faculty, student, and administration roles in solving problems, with an emphasis upon the instruments of governance in colleges and universities as well as upon the meaning of accountability, control, and support of higher education. This course is open to any interested student. Need not be taken in sequence. Elective Pass/Fail.
- 402-1 to 2 Principles of Student Personnel Group Work.** Acquaints the student with group work possibilities and functions in higher education. Elective Pass/Fail.
- 431-3 Workshop in Adult and Community Education.** (See Educational Leadership 431.)
- 501-2 Introduction to Research in Higher Education.**
- 510-3 Higher Education in the United States.**
- 512-3 Higher Education in Selected Nations.**
- 513-3 Organization and Administration in Higher Education.**
- 515-3 College Student Development: Operations and Policies.**
- 516-3 College Students and College Cultures.**
- 518-3 College Teacher and College Teaching.**
- 521-3 Curriculum Design and Policy.**
- 525-3 Philosophy of Higher Education.**
- 526-3 The Community-Junior College.**
- 528-3 Finance in Higher Education.**
- 535-1 to 14 (a-h-1 to 3 each; i-1 to 6) Higher Education Seminar I.**
- 545-1 to 16 (a-g-1 to 3 each; h-1 to 8) Higher Education Seminar II.**
- 550-1 to 4 Higher Education Seminar III.**
- 589-1 to 4 Higher Education Research Seminar.**
- 590-1 to 6 Individual Readings.**
- 591-1 to 6 Individual Study.**
- 592-1 to 6 Special Problems (Individual).**
- 595-1 to 6 Internship in Higher Education.**
- 599-1 to 6 Thesis.**
- 600-1 to 32 (1 to 16 per semester) Dissertation.**

History (Department, Major, Courses)

A major in history consists of a minimum of thirty-two semester hours of history courses. Students who plan advanced study in preparation for college teaching or other professional work are advised to take added work.

Courses may be chosen from all departmental offerings except for GSB 105. Pass/Fail grades do not carry credit toward the major or minor in history. A number of different patterns are available for students anticipating various futures. Students should consult with departmental advisers to choose the pattern that fits their needs. The basic regulation is that, for a course to count toward the major, it must be approved in advance by one of the advisers in the department. Normally the department will accept a substantial part of the credits in history taken in other accredited institutions up to a total of 16 hours. In every case, transfer students must have taken at least 16 semester hours in history at Southern Illinois University at Carbondale.

Advisers are available in the Department of History to assist students in planning their programs in accordance with current University and departmental regulations. Normally courses must represent at least two areas of history (United States, European, and Third World) with a minimum of three courses in two areas, or two courses in each of the three areas. Students must also complete a total of three courses at the 400 level.

All history majors should meet with the department's undergraduate advisers each semester to keep up to date the records of their progress toward the degree and to receive advance approval of their courses. Transfer students should report to the

department prior to their first semester of attendance. A *C* average in the major is required for graduation. A 2.25 average in the major is required before student teaching will be approved by the department.

Students with exceptional scholarly promise may be invited into the departmental honors program which begins with a colloquium and continues with an honors seminar and thesis prepared under the direction of a member of the department. Graduation with departmental honors in history is given to those who successfully complete the program.

Bachelor of Arts Degree, College of Liberal Arts

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements (See page 70.)</i>	(4) + 8-14
<i>Requirements for Major in History</i>	32 ¹
Two courses in American history, two courses in European history, and two courses in Third World: Latin American, Asian, and/or African history, or three courses in each of two of the above fields	18-24
History electives	8-14
<i>Electives</i>	29-35
These may include 24 hours in professional education for teacher certification.	
<hr/>	
<i>Total</i>	120

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45 ²
<i>Requirements for Major in History</i>	32 ¹
Two courses in American history, two courses in European history, and two courses in Third World: Latin American, Asian, and/or African history, or three courses in each of two of the above fields	18-24
History electives	8-14
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	19
<hr/>	
<i>Total</i>	120

¹At least three courses must be taken at the 400 level.
²See catalog section titled Curriculum, Instruction, and Media for specific certification requirements in General Studies and other areas.

Minor

A minor in history consists of 16¹ semester hours. The student is advised to balance courses between at least two of the three fields of American, European, or Third World history. Transfer students, in order to have a minor in history, must have taken at least eight semester hours in history at Southern Illinois University at Carbondale.

¹For the purposes of teacher certification the minor must be 18 semester hours.

Courses

- 200-3 Problems in the History of World Civilization.** Seminar focusing on selected topics in world history. Prerequisite: President's Scholars status or consent of instructor. Elective Pass/Fail.
- 203-3 Topics in Comparative History.** A comparative study of recurring themes in the

history of diverse societies and civilizations. Topics will vary and will be announced in advance. Topics to be covered include the problem of slavery, technology and society, war, and civilization. Elective Pass/Fail.

205-6 (3, 3) History of Western Civilization. (a) From ancient times through the sixteenth century; (b) The seventeenth century to the present. A brief survey of the major developments and trends in European history from ancient times through the 20th Century. Elective Pass/Fail.

310-4 Ancient Civilizations. A comparative study of ancient near eastern and classical civilizations of the Fertile Crescent and the Mediterranean Basin: Mesopotamia, Egypt, Palestine, Greece, and Rome. Elective Pass/Fail.

313-4 Ideas in Western History before 1600. A study of the major ideas which shaped the thinking of the Western World from ancient times through the Renaissance. Elective Pass/Fail.

315-4 Mediaeval Europe. The emergence of Europe from the Age of Constantine to the Black Death, with emphasis on the political, socio-economic, and cultural forces which were at work creating Europe. Elective Pass/Fail.

320-4 Early Modern Europe. The development of Europe from the 16th Century through the Age of the French Revolution. Elective Pass/Fail.

323-3 History and Artistic Creativity. A selected exploration of the specific conditions in Western history, from the Renaissance to the present, which have encouraged and given direction to creativity in the arts. Elective Pass/Fail.

325-4 Modern Europe. The development of Europe from the Age of the French Revolution to the present day. Elective Pass/Fail.

330-6 (3, 3) English History. (a) England to 1688; (b) England since 1688. Political, social, economic, and cultural history of England. Elective Pass/Fail.

336-3 Fascist Dictatorships in Contemporary Europe: Italy, Germany and Spain. Mussolini's fascism, Hitler's national socialism, and Franco's falangist authoritarianism in historical context. Prerequisite: sophomore standing or consent of instructor.

337-4 Contemporary Soviet Minorities. A study of the over one hundred minorities which are a part of the Soviet Union. Emphasis will be placed on the relationships between the Great Russians and minority groups since the Russian Revolution. Elective Pass/Fail.

338-3 Eastern Europe. An historical survey of the East European area from the Baltic to the Balkans, with emphasis on the modern era. Elective Pass/Fail.

350-3 The Revolution and the Constitution. A study of the conflicting forces which produced the American Revolution, led to the creation of the federal union and shaped the early republic. Elective Pass/Fail.

354-3 The United States Since 1945. America enters the atomic age; a study of American society since the end of the Second World War and the role played by the United States in the world. Elective Pass/Fail.

355-3 American Political Extremism. A study of American political and social extremist movements and groups, both of the right and the left, from the revolution to the present.

362-6 (3, 3) Black American History. (Same as Black American Studies 311.) (a) Black American History to 1865; (b) Black American History since 1865. The black man's role and contribution in the building of America and his ongoing fight for equality.

364-3 The Great Depression in the United States. Causes and effects of the great depression and of governmental measures for relief, recovery, and reform during the years 1929-1942. Elective Pass/Fail.

365-3 History of Social Welfare in America. Discussion of the changing attitudes and problems which Americans have applied to the problems of social welfare from the colonial period to the present. Focuses on the condition of the poor, the attitudes toward the poor, and the institutions, public and private, which were created to meet the obligations of social welfare.

367-3 History of Illinois. The history of the state from 1818 to the present.

368-3 Women in American History. Covers the role of women in colonial society, the impetus for an organized women's rights movement in the 19th century and how it related to general reform movements, and gains and setbacks in the industrial-urban society of the 20th century.

369-3 History of the American Family. A survey of the American family from its origins to the present, focusing on the variety of families—English, African, later immigrants, middle class, and poor. During the course students will write their own family histories, thereby applying what they have learned to their own lives.

370-6 (3, 3) History of Latin America. (a) Colonial Latin America. (b) Independent Latin America. An introduction to the political, economic, social, and cultural development of Latin America from Precolumbian times to the present. Elective Pass/Fail.

380-6 (3, 3) History of East and South Asia. (a) China and Japan; (b) India and Southeast Asia. The first semester focuses on China and Japan from early times to the present; the second semester concentrates on India and Southeast Asia in modern times.

387-6 (3, 3) History of Africa. (Same as Black American Studies 314.) (a) History of West Africa. A study of West African peoples from earliest times to the present, including the era of

kingdoms, the role of Islam, African-European relations, colonialism, and African nationalism. (b) History of East-Central Africa. From earliest times to the present, including migrations and kingdoms, African-Arab-European relations, colonialism, and African nationalism. Elective Pass/Fail.

390-3 History in Fiction. A comparative study of fictional accounts and of analyses written by historians over selected periods or topics.

395-3 Honors. Great ideas and works of history, with discussion of conflicting interpretations of major historical problems. Prerequisite: junior standing and consent of department.

396-2 to 8 Independent Study in Classical Studies Program. (See Classical Studies 496.)

415-3 European Rural Society, 400-1100 A.D. Monks, priests, peasants, barons, and kings; an historical sociology of the ecclesiastical and feudal regimes which replaced classical civilization after the fall of the Roman Empire in the West. Elective Pass/Fail.

416-3 European Urban Society, 1000-1550 A.D. Merchants, bankers, craftsmen, lawyers, and bureaucrats: a sociological and economic analysis of the origins and development of early modern European urban institutions. Elective Pass/Fail.

417-4 Cultural History of the Middle Ages. Selected problems in the development of mediaeval culture, the mediaeval universities, and the transmission of ancient ideas to the modern world. Elective Pass/Fail.

418-3 Renaissance. The focus is on the Renaissance in Italy and in particular on its relation to the social and economic context in which it developed. The spread of humanism and humanistic values to other areas of Europe will also be considered. Elective Pass/Fail.

420-3 Reformation. Concentrates on the movement of religious reforms in the 16th Century. Emphasis on its roots in the past, particularly in earlier expressions of popular piety and to the wider social and political effects in the 16th and 17th centuries. Elective Pass/Fail.

421-6 (3, 3) Absolutism and Revolution: Europe 1600-1815. (a) 1600-1715; (b) 1715-1815. The development of enlightened despotism, the rise of the revolutionary movement, and the Napoleonic period. Elective Pass/Fail.

422-6 (3, 3) Intellectual History of Modern Europe. (a) 1600-1815; (b) Since 1815. The first semester will cover the Age of Reason, the Enlightenment, and Early 19th Century Romanticism. The second semester will cover the period from Marx and Darwin to the Contemporary World. Elective Pass/Fail.

423-4 Diplomatic History of Europe Since the Congress of Vienna. A study of the diplomatic relations between the nations of Europe in the 19th and 20th centuries.

424-6 (3, 3) Social and Revolutionary Movements in Nineteenth Century Europe. (a) 1815- 1871; (b) 1871-1914. Changing social and political structure of Europe caused by the impact of industrialization and the French Revolution. The consequences of these developments in terms of the emergence of new social forces and the development of movements for social and political revolution. Elective Pass/Fail.

425-6 (3, 3) Twentieth Century Europe. (a) World War I to World War II; (b) World War II and after. Problems in the political, social, and military history of Europe in the 20th Century. Elective Pass/Fail.

430-3 The British Empire-Commonwealth. The rise of the British Empire and its subsequent development into a commonwealth of self-governing nations. Elective Pass/Fail.

431-3 British Constitutional History. The development of the English constitutional system from its origins to modern times. Elective Pass/Fail.

432-4 History of France. Social, economic, political, and intellectual evolution from mediaeval origins to the present day. French contributions to western culture. Elective Pass/Fail.

433-4 History of Germany. German state and society from the Middle Ages to the present day. Elective Pass/Fail.

434-3 History of Scandinavia. Denmark, Norway, Sweden, Finland, and Iceland. Related history of the Baltic and North Sea regions, from prehistoric times to the present. Elective Pass/Fail.

435-3 History of Modern Italy. Italy in the 19th and 20th centuries. Emphasis is on continuing problems: the tensions between agricultural south and industrial north, Italy's role as a Great Power, and the persistence of centrifugal forces in Italian politics. Elective Pass/Fail.

436-6 (3, 3) History of Spain. (a) To 1700; (b) Since 1700. Institutional, intellectual, socio-economic, and political history from the Middle Ages to the present. Elective Pass/Fail for (b) only.

437-6 (3, 3) History of Russia. (a) Imperial Russia from Peter the Great to the emancipation of the serfs; (b) Russia since emancipation: modernization and revolution. The study of Russian history from Peter the Great to the present. Elective Pass/Fail.

450-4 American Colonial History. The discovery, settlement, and development of the colonies before the American Revolution.

451-3 Jeffersonian and Jacksonian America, 1789-1850. Origin and development of democratic institutions and the emergency of sectional conflict in the pre-Civil War Era. Elective Pass/Fail.

452-6 (3, 3) United States History 1850-1896. (a) Civil War era; (b) the origins of modern

America; reconstruction and nationalization: 1865-1896. The study of the background to the Civil War, the Civil War, Reconstruction, and the Gilded Age.

453-6 (3, 3) Twentieth Century American History. (a) 1896-1921; (b) 1921-1945. The history of the United States since 1896 with emphasis upon political history and behavior.

460-6 (3, 3) Social and Intellectual History of the United States. (a) To 1860; (b) since 1860. The development of American society and a study of the various types of economic, social, and political thought that have influenced it.

461-6 (3, 3) Constitutional History of the United States. (a) To 1877; (b) from 1877. Origin and development of the American Constitution from the English background to the present time. Stress is placed on the political, social, and economic forces which influenced the American constitutional system. Elective Pass/Fail.

462-4 Problems in Black American History. Developments which formed the foundation for the "Black Revolution" of the present time.

463-6 (3, 3) History of American Diplomacy. (a) To 1914; (b) Since 1914. General consideration of American foreign policy and the emergence of the United States as world power. Elective Pass/Fail.

464-6 (3, 3) American Economic History. (a) To 1869; (b) Since 1869. The growth of the American economy from the colonial period to the present. Emphasis is placed on the historical forces which influenced the American economic system.

465-6 (3, 3) History of the South. (a) The Old South; (b) The New South. Social, economic, political, and cultural developments of the South.

466-6 (3, 3) History of the American West. (a) To 1850; (b) Since 1850. The American frontier and its impact on American society from the colonial period to the 20th Century.

470-3 Colonial Latin America: Policies and Practices. Theory and operation of the Spanish and Portuguese colonial systems in the New World. Election Pass/Fail.

471-6 (3, 3) History of Mexico. (a) 19th Century; (b) 20th Century. Significant political, economic, diplomatic, social, and cultural aspects of Mexican life from independence to the present time with emphasis upon the Mexican Revolutions. Election Pass/Fail.

472-3 The Caribbean Area. A history of the Caribbean from Columbus to modern times. Elective Pass/Fail.

473-3 Argentina and Chile. A narrative and comparative history of these two leading Latin American nations with emphasis on the period since independence. Elective Pass/Fail.

474-3 Andean South America. The political, economic, social and cultural development of the Andean nations from Precolumbian times to the present. Elective Pass/Fail.

475-3 History of Brazil. The political, social, cultural and economic development of Latin America's largest nation. Elective Pass/Fail.

476-3 Dictatorships in Latin America. A political, economic, social and military study of the domestic and international aspects of dictatorship. Elective Pass/Fail.

480-6 (3, 3) History of Chinese Civilization. (a) Traditional China; (b) Modern China. The first semester provides a full coverage of traditional China and emphasis on classical philosophies, religions, historical writings, literature, arts and science. The second semester deals with the transformation of China into the modern ages. Elective Pass/Fail.

484-3 History of Inner-Asian Relations. Tribes, migrations, wars, and power politics in Central Asia and outlying areas of China from Han times through 19th century rivalries to latest developments along the Sino-Soviet frontier. Elective Pass/Fail.

485-3 History of the Middle East. A study of the Middle East from the 7th through the 16th centuries concentrating on the following major themes: the development of Islamic civilization, the mediaeval Muslim world, the disintegration of the Arab caliphate, the rise of the Ottoman Turks, and the development of the Ottoman Empire. Elective Pass/Fail.

487-4 Topics in African History. Investigations into the most important historical questions of Sub-Saharan Africa. Prerequisite: 387a, b or consent of instructor, or graduate standing. Elective Pass/Fail.

490-1 to 4 Special Readings in History. Supervised readings for students with sufficient background. Prerequisite: Registration by special permission only.

491-3 Great Historians. Writings of historians from Herodotus to Toynbee. Elective Pass/Fail.

492-3 Methods of Historical Research. Fundamentals of historical investigation, criticism and composition. Open not only to history majors but with permission of instructor to those in other disciplines interested in history as a research tool.

493-3 to 6 (3, 3) Problems in U.S. History. Topics vary with instructor. May be repeated for a maximum of six semester hours provided registrations cover different topics. Topics announced in advance.

495-4 History Honors. Principles of historical method, research, and writing for senior honor students only. Not for graduate credit. Prerequisite: consent of department.

497-3 Historical Museums, Sites, Restorations and Archives. The historical development of the museum from the Academy, the Lyceum, and the Great Museum of Alexandria. Discussion of the museums that have developed in the last three centuries with emphasis on the United States will include historical sites such as battlefields, forts, historic buildings, restorations, historical monuments, and major archives. Field trips to some of these sites form part of the course.

- 498-3 Problems of the History Museum.** Examines the general background and function of the museum in its contemporary setting with special emphasis on tasks of the individual who wishes to work in a historical museum or in an interpretative center. Given in cooperation with the University Museum. Prerequisite: consent of instructor.
- 515-3 to 6 (3, 3) Studies in Mediaeval and Renaissance History.**
- 516-4 to 8 (4, 4) Seminar in Mediaeval and Renaissance History.**
- 520-3 to 6 (3, 3) Studies in Early Modern European History.**
- 521-4 to 8 (4, 4) Seminar in Early Modern European History.**
- 522-3 to 6 (3, 3) Studies in Modern European History.**
- 523-4 to 8 (4, 4) Seminar in Modern European History.**
- 530-4 Seminar in English History.**
- 550-4 Seminar in American Colonial History.**
- 551-4 The Age of Jefferson.**
- 552-4 Reform Movements in the Pre-Civil War Period.**
- 553-4 Seminar in Twentieth Century United States History.**
- 554-4 New Viewpoints in American History.**
- 555-4 to 8 (4, 4) Seminar in American History.**
- 561-4 Seminar in American Constitutional History.**
- 562-4 Seminar in Black American History.**
- 563-4 Seminar in American Diplomatic History.**
- 564-4 Seminar in American Economic History.**
- 567-4 Seminar in Illinois History**
- 570-4 to 8 (4, 4) Seminar in Latin American History.**
- 580-4 Seminar in Modern China.**
- 587-4 Seminar in African History.**
- 590-1 to 8 (1 to 3 per semester) Readings in History.**
- 591-2 to 5 Independent Investigation.**
- 599-1 to 6 Thesis.**
- 600-1 to 30 (1 to 16 per semester) Dissertation.**

Home Economics Education

(SEE VOCATIONAL EDUCATION STUDIES)

Human Resources (College, Courses)

Courses

- 101-3 Human Needs and Resources.** Survey of social problems, institutions, theories and strategies for meeting the needs of individuals, groups, and communities in American society.
- 111-1 Home Economics Careers.** (See Vocational Education Studies 119.)
- 258-1 to 30 Work Experience Credit.** Credit for work experience relevant to the particular departmental programs: prior to entrance into the University; work experience incorporated into instructional programs through internship; cooperative work experience programs between the department and the Office of Student Work and Financial Assistance. Credit hours to be granted to be determined by the department chairman.
- 259-1 to 24 Occupational Education Credit.** Credit for educational experiences in technical schools and institutes, junior college technical and occupational programs and employee training relevant to the particular departmental programs. Credit hours granted to be determined by the department chairman.
- 305-1 to 4 College of Human Resources Honors Seminar.** Readings and group discussions in areas of current interest. Prerequisite: junior standing, GPA of 3.0 overall.
- 306-1 to 4 College of Human Resources Honors Seminar.** Varying topics studied in breadth and depth. Maximum opportunity for student participation in the exploration of the subject. Prerequisite: junior standing, GPA of 3.0 overall.
- 387-1 to 6 College of Human Resources Special Problems-Honors.** Directed study in specialized problems associated with human resources. Prerequisite: junior standing. GPA of 3.0 overall.
- 388-1 to 6 College of Human Resources Research and Investigations-Honors.** Supervised research and investigation in the area of human resources. Prerequisite: junior standing, GPA or 3.0 overall.
- 410-3 Resources of the Elderly.** Recognition and examination of needs, situations, and issues affecting elderly persons; resources and sources of benefits available. Emphasis on techniques and application of information through interaction with the elderly. Prerequisite: two courses in behavioral sciences.

Industrial Technology (Major, Courses)

The industrial technology major has as its objective the training of qualified personnel who can develop and direct the manufacture and distribution of products.

The program is a balanced curriculum of studies drawn from a variety of disciplines relating to industry. Included in the curriculum is the study of materials and manufacturing processes, principles of distribution, and concepts of industrial management and human relations. Communication skills, humanities, and social sciences are studied to develop overall abilities. Knowledge of physical sciences, mathematics, design, and technical skills gained from the program allow the graduate to cope with technical and production problems.

The industrial technology curriculum is flexible enough to provide the means whereby graduates of two-year occupational programs may obtain a Bachelor of Science degree within two years. A graduate of a two-year industrially-oriented occupational program, such as aviation, architecture, automotive, construction, drafting, data processing, electrical, machine tool, mechanical, mid-management, mining supervision, and welding may have an excellent preparation to pursue a Bachelor of Science degree with a major in industrial technology.

Students with work related experience may receive credit toward the degree via Industrial Technology 258.

Additional flexibility in earning credit toward the degree is provided through off-campus courses and cooperative work experience. Cooperative work experience is available to students who qualify with provision that meaningful employment is available in the participating industries.

Off-campus courses for students in the industrial technology program are offered in geographical locations with a high population density whenever it is apparent that there is a need and potential enrollment to justify scheduling a class, it is possible to obtain a faculty member to teach the class, and adequate laboratory and library facilities are available.

The industrial technology program is accredited by the National Association of Industrial Technology.

Bachelor of Science Degree, School of Engineering and Technology

INDUSTRIAL TECHNOLOGY MAJOR

<i>General Studies Requirement</i>	45
<i>Requirements for Major in Industrial Technology</i>	75
Physics 203a, b; 253a, b	(6) + 2
GSD 118	(2)
Mathematics 111	(4) + 1
Engineering 222	2
Psychology 320 or Administrative Sciences 301 or Administrative Sciences 385	3
Engineering Technology 103, 104, 244, 245a	12
Industrial Technology 307, 309, 310, 358, 365, 375, 382, 390, 425, 440, 465	35
Technical electives	20
Groups of electives selected from the areas of manufacturing, technical sales, supervision, industrial design, industrial safety, and other technical fields.	

Total 120

INDUSTRIAL TECHNOLOGY MAJOR—OCCUPATIONAL ALTERNATIVE SPECIALIZATION
For students from two-year industry-related occupational programs in a community college or technical institute. Also, students with related work experience may receive credit and qualify for this alternative.

<i>General Studies Requirements</i>	45
<i>Requirements for Major Industrial Technology</i>	75
Physics 203a, b; 253a, b	(6) + 2
GSD 118	(2)
Mathematics 111	(4) + 1
Engineering 222 or Industrial Technology 450	2-3
Industrial Technology 105, 307; 308, 358, 365, 375, 382, 440, 465	28
Technical electives	41-42
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<i>Total</i>	120

INDUSTRIAL TECHNOLOGY MAJOR—MINING SPECIALIZATION
The course requirements for the mining technology specialization are specifically planned to complement the mining technology background of the community college or technical institute associate degree graduate.
In preparing the subject matter for the mining courses every effort has been made to include topics proposed by local mining companies. The main thrust of the overall program is directed toward increased coal production.
Topics included in the course work center around mining methods, mine management studies, quality control, production control, government regulations, safety, productivity-increase methods, current mining problems, mine surveying, geology, mathematics, social sciences, humanities, English composition, technical writing and the physical sciences.

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Industrial Technology</i>	75
Geology 220	(3)
Physics 203a, b; 253a, b	(6) + 2
GSD 118	(2)
Mathematics 111	(4) + 1
Engineering 222	2
Engineering Technology 103, 104, 263	9
Industrial Technology 307, 330-4, 360, 365, 375, 382, 420, 439, 460, 465	34
Technical electives	27
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<i>Total</i>	120

Courses

Safety glasses, a suitable calculator or slide rule, and textbooks are required for most of the following courses.

105-2 Technical Drawing. Basic principles of technical drawing including orthographic (multiview) projection; point-line-plane relationships, and pictorial drawing. Two hours of lecture and two hours of laboratory per week. Drawing supplies and workbook required cost approximately \$15. Elective Pass/Fail.

258-2 to 30 Work Experience Credit. Credit granted for past work experience while employed in fields related to the student's educational objective. Credit is established by departmental evaluation.

259-2 to 50 Occupational Credit. For occupational credit earned at junior colleges and technical institutes. Credit is established by departmental evaluation.

307-3 Analytical Problems in Technology. Methods of formulation and solution of special problems encountered in industry and technology using advanced techniques. Prerequisite: Mathematics 111 or equivalent.

308-4 Fundamentals of Industrial Processes. Introduction to the basic processes, equipment, and materials used in industry. Includes plastics, metal removal, casting, metal forming, and materials joining. Credit is not given if the student has credit for both 309 and 310.

309-4 Industrial Processes I. A comprehensive study of plastic processes, resins, equipment, and materials. Study of metal removal processes emphasizing economics, cutting theory, and non-traditional methods. Laboratory.

310-4 Industrial Processes II. Comprehensive study of metal casting, processes, testing instruments, and production equipment. Analysis of metal forming processes with emphasis on the newer techniques of explosive, ultrasonic, and powder metallurgy. Study of metal joining techniques. Laboratory.

318-3 Municipal Hydraulics. A study of the field of applied hydraulics as related to municipal water systems. Emphasis will be placed on the construction of systems to supply adequate volumes for fire flow requirements.

319-2 to 30 Industrial Internship. Industrial experience includes job skills, manufacturing processes, technical information, and labor-management relationships with supervised instruction, conferences, and examinations. Prerequisite: consent of instructor.

320-3 Surface Mining Operations. The elements of surface mining, methods and equipment, surface mine terminology, pit development, and equipment selection. Field trips. Prerequisite: appropriate background.

330-1 to 4 Current Mining Problems. Guest lecturers provide timely information on current mining technology problems. Special investigations of mining techniques. Emphasis on state and federal regulations.

335-3 Metallurgy and Heat Treatment. Analysis of metal structures and principles and processes of heat treatment. Laboratory. Prerequisite: Mathematics 111.

340-3 Numerical Control. Principles of numerically controlled processes, equipment and programming. Includes APT computer language. Laboratory. Prerequisite: 308, Engineering 222.

341-3 Maintenance. Principles and practices of maintenance department organization, preventative procedures, and typical equipment problems. Also, includes related topics such as plant protection, custodial services, and maintenance of power plants.

342-3 Industrial Finishing. Methods and equipment of industrial coating and surface treatment processes, with emphasis in process selection for economy and function. Prerequisite: 308.

351-3 Industrial Metrology. Error analysis. Measurement standards and inspection systems. Prerequisite: 365.

354-3 Plastics Technology. Advanced study of plastic processes concentrating on test methods, material selection, and an in-depth study of an assigned plastic process. Laboratory.

358-3 Materials Handling and Plant Layout. Methods and equipment of materials handling. Plant layout techniques. Students are assigned a plant layout project. Prerequisite: 382 or Administrative Science 318, or consent of instructor.

360-3 Mine Production. A study of mining methods, production, techniques and automated process control. Flow sheets. Production economics. Mine management studies. Government regulations. Prerequisite: appropriate background.

362-3 Industrial Packaging. Analysis of packing principles, equipment, and processes such as paper, glass, metal containers, and plastics.

365-3 Quality Control. Analysis of control charts, acceptance sampling procedures, inspection systems, reliability and quality experiments.

369-3 Industrial Design. Introduction to the basic design concepts including design process developments, design phases, and communications. Emphasis on factors influencing design, design analysis, and creative thinking.

375-3 Production and Inventory Control. Production and inventory control systems with emphasis on cost analysis. Applicable operations research techniques.

379-3 Machine and Tool Design. Emphasis on metal processing equipment design. Prerequisite: 308, 369, recommended.

382-3 Motion and Time Study. Principles and practices of motion and time study including process charts, operation charts, motion summary, and time standards.

390-2 Cost Estimating. Study of the techniques of cost estimation for products, processes, equipment, projects, and systems.

420-3 Coal Analysis and Inspection. A study of methods and equipment for the inspection and analysis of coal including the techniques for the design of coal-quality experiments. Laboratory. Prerequisite: 365 or appropriate background.

425-3 Advanced Process Design and Control. Extension of other process courses offered. Meets the need of those students who enter the field of manufacturing by giving more emphasis on planning, estimating, and control of industrial processes. Laboratory. Prerequisite: 309, 310.

- 439-3 Bulk Materials Handling.** Study of the various types of equipment used in the mining industry. Estimation of costs and output of equipment used for excavating and transporting earth materials. Prerequisite: appropriate background.
- 440-3 Manufacturing Policy.** Review of all areas covered by the industrial technology program. Includes problems for solution which simulate existing conditions in industry. Students present their solutions to the class and to the instructor in a formal manner. Prerequisite: 358, 365, 375, 382, or consent of instructor.
- 441-3 Mine-Safety Technology.** An in-depth study of the technological implications of the Federal Coal Mine Health and Safety Act. Emphasis is placed on the technology required to operate safely underground coal mines. Prerequisite: appropriate background.
- 450-3 Industrial Systems Analysis.** Teaches the systems required for successful industrial operations. The role of the computer in system design and application is emphasized. Prerequisite: 365, 375, Engineering 222.
- 460-5 Mining Technology.** Mining methods; mine ventilation and pumping systems; mine structures; power distribution; coal-mine development and exploitation. Prerequisite: 360 or appropriate background.
- 465-4 Industrial Safety.** Principles of industrial accident prevention; accident statistics and costs; appraising safety performance; recognizing industrial hazards and recommending safeguards. Includes a study of the Occupational Safety and Health Act and the Coal Mine Health and Safety Act. Prerequisite: senior standing.
- 466-3 Occupational Safety and Health Standards.** Covers the standards, inspection procedures, and compliance requirements covered in the latest revisions of the Occupational Safety and Health Act of 1970. Emphasis is placed on developing the student's ability to detect violations of the standards and recommend corrective safety actions.
- 492-1 to 6 Special Problems in Industry.** Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected industrial problems. Not for graduate credit. Prerequisite: consent of instructor.

Interior Design (Major, Courses)

The interior design program is a part of the Division of Comprehensive Planning and Design.

The interior design curriculum is planned to assist students in preparing to serve the interior design and architectural professions in the areas of public building, commercial, and residential planning. This includes spatial concepts, interior systems, office landscape, traffic and communication, and human factors. An in-depth understanding of the relevancy of the curriculum to the profession is given the students through lectures and critiques by visiting interior designers, architects, and adjunct professors.

Employment opportunities exist in interior design studios and architectural firms; in major corporations as in-house planners and designers; as interior decorators; and in various retail organizations and furnishing manufacturers.

The Interior Design program is accredited by the Foundation for Interior Design Education Research.

The Division of Comprehensive Planning and Design provides the faculty, studios, and as many other facilities as possible, but all other costs including supplies, equipment, and required field trips that are necessary to the successful completion of the program are borne by the student. Interior design education is relatively expensive, and because of the individual nature of the creative laboratory work, it is impossible to predict the exact cost for each student. A reasonable estimate of initial cost would be \$150.00 for equipment, supplies, and books. Much of this equipment is non-expendable but there will be additional supply costs for other courses in the program.

Bachelor of Science Degree, College of Human Resources

General Studies Requirements	45
Requirements for Major in Interior Design	75
School of Technical Careers 215a, b	6
Art 200, 207	5
Clothing and Textiles 104	2

Interior Design 231, 300, 332a, b, 350, 381, 382, 383, 384, 390, 391a, b, c, 393, 394, 470, 491	51
Electives	11
Recommended electives: GSC 101, Administrative Sciences 170, Finance 271, Journalism 340, Cinema and Photography 320, Interior Design 331, 371, 481, 492; Theater 207, 412	

<i>Total</i>	120
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Courses

131-4 Introduction to Design, Home Furnishings and Interiors. Analysis of the visual environment, principles and elements of design and their relation to selection and arrangement of furniture and use of various media in design of residential interiors. Not open to interior design majors. Lecture and laboratory. Elective Pass/Fail.

231-3 Introduction to Interior Design. Introduction to principles of two- and three-dimensional design through the application of purposeful experiments with emphasis on functional uses of form and their relationship in space. Various media, application and viewpoints are used. To be taken concurrently with School of Technical Careers 215A. Lecture and Laboratory.

300-2 Display and Exhibition Design. Application of design principles and use of graphics in display. Studies in two- and three-dimensional display and exhibition; model-making techniques. Incidental expenses for supplies and materials. Prerequisite: 131 or 231 or consent of chairman. Elective Pass/Fail.

331-3 Textile Design. Study of textile design and hand printing methods in textile production including block print, silk screen, batik, and tie dye. Simple weaving techniques. Lecture and laboratory. Prerequisite: 131, or 231, or consent of instructor. Elective Pass/Fail.

332-6 (3, 3) Construction Methods and Materials for Interior Designers. Study of construction methods and materials of buildings and standard graphic methods of presentation for interior designers. (a) residential (b) small commercial. Lecture and laboratory. Prerequisite: 232 or consent of chairman.

350-3 Basic Materials. A study of construction and finishing materials other than those of a structural nature including production methods, limitations, quality control, application, and uses. Lecture. Prerequisite: concurrent enrollment in 332 or consent of chairman.

371-4 Professional Internship. Supervised internship in interior design providing professional development of the intern through actual working conditions. Prerequisite: interior design majors within four semesters of graduation and consent of chairman. Mandatory Pass/Fail.

381-2 History of Interior Design through the 19th Century. Furnishings and interiors from antiquity to the late 19th Century. Lecture.

382-2 History of 20th Century Interior Design. History of interiors, furnishings, and designers from the late 19th century to the present. A study of the relationship between the design of contemporary interiors and architecture and architects. Lecture.

383-2 Design and Fabrication of Furniture. Anthropometrics and systems analysis as related to the design, construction, and production of furniture. Includes working drawings and models. Lecture/laboratory. Recommended to be taken concurrently with 382. Prerequisite: School of Technical Careers 215B or Architectural Technology 111 or consent of chairman.

384-3 Systems in Architectural Interiors. Technical survey of mechanical equipment in buildings with emphasis on lighting and illumination design. Consideration will also be given to environmental comfort, acoustics, sanitation, and code requirements. Lecture. Prerequisite: 332A.

390-3 Design Presentation and Delineation. Methods, materials, and media are explored to find the most satisfactory way to present interior design to clients, including creation of three-dimensional delineation of interior designs in varied media. Lecture and laboratory. Prerequisite: 231 and School of Technical Careers 215B.

391-12 (4, 4, 4) Intermediate Interior Design. Interior design of total environment concepts integrating interior and architectural functions through increasingly complex projects. (a) Residential. Prerequisite: 390 and concurrent enrollment in 332a. (b) Restaurant and commercial. (c) Office and public building planning. Prerequisite for 391b or c: 391a and concurrent enrollment in 332b or consent of chairman.

393-3 Architectural Analysis for Interior Designers. A study of architectural components as they relate to the proximate interior environment. Includes architectural planning of interior and exterior elements. Prerequisite: 332b and 390 or consent of chairman.

394-3 Contract Interior Design and Professional Practice. Residential and contract interiors and business principles of interior design, including systems, forms, and logistics of

money and materials. Lecture and laboratory. Prerequisite: 391b or c or consent of chairman.
418-1 to 6 Workshop in Interior Design. Current problems facing the professional interior designer. Discussion, reports, lectures, design solution presentations, and other methods of analyzing and working on design problems. Prerequisite: 28 hours in interior design or consent of chairman.

470-3 Interior Design Seminar. Development of systematic approach involving systems analysis, human factors engineering, environmental variables. Prerequisite: eight hours in interior design or consent of chairman.

481-1 to 4 Readings. Selected readings in the area of individual interests in design-related research. Prerequisite: 28 hours in interior design or consent of chairman.

491-4 Advanced Interior Design. Systematic analysis of human factors as determinants of design solutions for large-scale interiors. Lecture and laboratory. Prerequisite: 391c, 394 or consent of chairman.

492-1 to 5 Special Problems. Directed independent work and study in areas determined by the student's interests and needs. Lecture and laboratory. Prerequisite: 18 hours in interior design or consent of chairman.

Journalism (School, Major, Courses)

The School of Journalism prepares academically sound, technically proficient, capable, and responsible graduates for professional journalistic careers. These careers, depending upon the level and direction of studies, may be found in news-editorial and advertising positions on newspapers, magazines, cable communications systems, and other news media; in other advertising careers; and in public relations, media management, photojournalism, teaching, and research.

Two specializations, news-editorial and advertising, are accredited by the American Council on Education for Journalism, the agency approved by the U.S. Department of Health, Education and Welfare to accredit in journalism education. Early in the junior year the student must decide upon a specialization, either of which provides a number of electives which permit the student to explore other areas in journalism.

ADVERTISING SPECIALIZATION

Students electing the advertising specialization develop their abilities to analyze problems and identify the roles advertising and other communications can play in solving them; develop tools of planning, executing, and controlling advertising campaigns; and develop skills in the use of language and other message forms for specific purposes. A core of courses totaling 21 hours is required of all students, leaving 9 to 13 hours for work in one or more of the nine areas of interest mentioned in the following paragraph. This program helps prepare students to enter a wide variety of positions with advertising agencies, in the media, and related fields.

NEWS-EDITORIAL SPECIALIZATION

Students who elect the news-editorial specialization gain thorough professional training in both theory and practice in a number of related fields. These include daily and weekly newspapers, magazines, telecommunications, media management, photojournalism, public relations, research, and teaching. A core of courses totaling 24 semester hours is required of all students, leaving 6 to 10 hours for work in one or more of these nine areas of interest.

Bachelor of Science Degree, College of Communications and Fine Arts

The academic requirements for the Bachelor of Science degree in journalism include 30 to 34 hours in journalism as approved by the School of Journalism and 26 to 30 hours in journalism as approved by the School of Journalism and 26 to 30 hours in junior-senior level class work in the College of Liberal Arts, the College of Science, or other areas approved by the faculty.

Students will also complete a 15-hour minor in an area approved by the School of Journalism. The minor must be declared by the time the student has accrued 90

semester hours. Students who select a minor within the College of Liberal Arts may include those hours in their 26-30 senior level hours.

<i>General Studies Requirements</i>	45
<i>Requirements for a Major in Journalism</i>	30-34
Journalism 300, 310, 370	9
Required for the Advertising Specialization: 372, 374, 376, 479	12
or	
Required for the News-Editorial Specialization: 311, 312, 442,	
and two of the following: 390, 391, 411	15
Journalism electives to complete 30-34 hours	
<i>Minor</i>	15
<i>Approved electives</i> (Must include Marketing 304 for	
Advertising Specialization)	26-30
<i>Total</i>	120

PHOTOJOURNALISM SPECIALIZATION

A photojournalism specialization, administered jointly by the School of Journalism and the Department of Cinema and Photography, prepares students to become photographer-reporters and photo editors and to work in related positions in the mass media. Journalism majors enrolled in the specialization will be required to take the following courses: Journalism 300, 310, 311, 313, 370, 442 and either 312 or 315; Cinema and Photography 407, and 408; plus additional journalism hours for a total of 30-34.

Bachelor of Science Degree, College of Education

Students who plan to teach journalism must follow the program set forth by the College of Education, fulfill the requirements of the sequence of their choice in journalism, and complete Journalism 420. See Teacher Education Program, page 63.

Other Requirements

Journalism students must demonstrate a working knowledge of typewriting based upon a minimum rate of 30 words a minute. This proficiency must be demonstrated (by proof of a passing grade in a typing course or an examination given by the School of Journalism) before they register for Journalism 310. If they cannot meet this requirement, they must enroll in a typing course and receive a grade of *C* or better.

A student receiving a grade of *D* or lower in a journalism sequence course must repeat that course and receive a grade of *C* or better before advancing in that sequence.

Moderate fees will be assessed for supplies and materials in some courses.

Subject to the approval of the school's director, undergraduate students may receive as much as nine hours of journalism credit toward their degrees for courses not taken in residence.

Minor

A total of 15 hours of journalism courses constitutes a minor for nonjournalism majors.

Courses

300-3 Mass Media in Modern Society. Develops an awareness of the pervasive nature of the mass media in our society and an understanding of how the media operate, with emphasis on contemporary social and economic problems in the media.

305-3 Introduction to Mass Communication Theory and Research. Overview of issues and concepts in mass communication today, development of problems from theory and

practice. Introduction to language and basic techniques of survey and experimental research, including use of the computer for data processing.

310-3 Writing for the Mass Media. Study in the fundamentals of news writing, the techniques of news gathering and reporting, and the principles of editing with experience in the gathering, writing, rewriting, and editing of news copy. Prerequisite: typing speed of at least 30 words per minute.

311-3 Reporting and News Writing. Purposes and effects of different orientations to the information gathering and news writing processes; information sources, interviewing, writing, and editing practices; laboratory in reporting, writing, and editing for the news media. Prerequisite: 310.

312-3 Editing and Makeup. Principles of editing are combined with graphic concepts and techniques which interrelate printing processes, photography, writing of cutlines, picture page preparation, and page makeup, copyfitting, head schedules, newspaper organization, and the work flow on the ad and editorial sides. Prerequisite: 311.

313-3 Introduction to Photojournalism. (Same as Cinema and Photography 313.) Fundamentals of publications photography. Includes basic camera technique, black and white film and print processing methods, selection and display of photographs, and evaluation of pictorial communication effects. Student supplies own photographic materials and, where possible, an adjustable camera. Prerequisite: consent of department. Open only to journalism majors. Students are responsible for purchase of supplies not to exceed \$25.

315-3 Graphic Communication. History of printing and typographic development, modern reproduction processes, technological developments, selection and use of appropriate graphic images in communication, and production techniques for publications. Students are responsible for purchase of supplies not to exceed \$15.

340-2 Publicity Methods. Guidance and practice in writing for newspapers, magazines, and broadcast media about students' fields of specialization. Includes practical work as publicist for university and community groups. Non-majors only. Closed to students who have passed 310.

341-3 Public Relations. Current methods of planning and executing public relations policies, evaluating the media, and preparing campaigns. Promotional tools and press relations.

350-3 Community-Suburban Journalism. The small newspaper recognized as a distinct medium, performing a specialized function for its readers. Equal weight given to the problem of news presentation and to leadership with careful examination of news and editorial policies of representative newspapers. Prerequisite: 311.

351-3 Community Newspaper Management. Organization, operation, and policy of the revenue departments of the community and suburban weekly and small daily newspapers with special attention to the circulation procedures, retail, general and classified advertising problems, and other phases of management. Prerequisite: 350.

360-3 Magazine Production and Design. The editorial and production functions of the magazine. Application of the principles of article and art layout to total editorial content. Printing production and selection of materials. A field trip is required. Cost should not exceed \$20.

361-3 Specialized Publications. The function and operation of industrial, trade, business, professional, fraternal, literary, scholarly, and fad publications. Problems of management and production and the relationship of personnel through editorial policies and practices.

362-3 Magazine Article Writing. Investigation of free-lance and staff-written magazine articles with emphasis on the relationship between types of magazines and article content, research methods, and writing style. Two major articles of publishable quality required. Prerequisite: 311.

370-3 Principles of Advertising. An introduction to the processes of advertising and their functions in a marketing-communications environment; includes research, media, and message elements of advertising campaigns, governmental regulations, and social and economic considerations.

372-3 Advertising Media and Management. Analysis of economic, social, and marketing factors and their use in developing advertising objectives and strategies. Examination of mass media systems as vehicles of advertising communication and the planning, buying, and scheduling of advertising media programs. Prerequisite: 370, Marketing 304.

374-4 Advertising Copy, Layout, and Production. Examination and practice in the development of advertising message strategies and the writing and design of advertising messages for television, radio, newspaper, magazine, outdoor, direct mail, etc. Students are responsible for purchase of supplies not to exceed \$15. Prerequisite: 372.

376-3 Advertising Campaigns. Application of advertising principles and techniques to the solution of a specific advertising problem facing a cooperating advertiser or advertising agency; problem analysis, development of strategy, media planning, message development, campaign presentation. One field trip is required for a campaign presentation. Cost should not exceed \$20. Prerequisite: 374.

390-3 Critical and Persuasive Writing. The roles and responsibilities of the editor, editorial writer, and opinion columnist with emphasis upon editorial writing and critical

thinking. Editorial problems, methods, policies, style, and the fundamentals of persuasion and attitude change form the basis for study. Prerequisite: 311.

391-3 Feature Writing. Identification, research, and application of creative writing techniques with emphasis on newspaper articles. Analysis of reader appeal; study of feature story structure; development of style by practice in writing feature stories. Prerequisite: 311.

392-3 Reporting for Electronic Media. Researching, writing, and producing local news and public affairs presentation for CATV systems. Prerequisite: 310.

400-3 History of Journalism. Development of American newspapers, magazines and radio-television with emphasis on cultural, technological, and economic backgrounds of press development. Current press structures and policies will be placed in historical perspective.

401-3 International Communication. An analysis of the development, structure, functions, and current status of media systems in other countries. Emphasis given to studying factors that facilitate or restrict the flow of intranational and international communication.

411-3 Public Affairs Reporting. Covering government and other public agencies, including the city hall, courts, county offices, business, finance, agriculture, labor, and other specialized beats. One field trip is required. Cost should not exceed \$20. Prerequisite: 311.

420-3 School Publications. Designed for the prospective high school or junior college journalism teacher or publication director. Deals with practical production problems of school newspapers and yearbooks.

442-3 The Law of Journalism. Legal limitations and privileges affecting the mass media to include the law of libel, development of obscenity law, free press and fair trial, contempt of court, right of privacy, advertising and antitrust regulations, copyright, and access to the press. Prerequisite: senior standing.

450-3 Mass Media Management. Basic economic and management theory and application of theory to the management process in the mass media. Individual projects involving analysis of management of a selected medium. Prerequisite: consent of instructor.

451-3 Current Media Problems. Readings and weekly seminar discussions on the role of the journalist in seeking solutions to the problems facing the mass media in the last third of the Twentieth Century. Involves questions of economics, structure, ethics, effects.

479-2 Social Issues and Advertising. Analysis of social issues involving advertising; economic relationships, government and self-regulation, cultural effects, influence on media content and structure, role in democratic processes, international, and other problems and controversies. Prerequisite: senior standing.

490-1 to 6 (1 to 2, 1 to 2, 1 to 2) Readings. Supervised readings on subject matter not covered in regularly scheduled courses. Prerequisite: written consent of instructor and area head.

494-1 to 3 Practicum. Study, observation, and participation in publication or broadcast activities. Not for graduate credit. Prerequisite: consent of instructor and area head.

495-1 to 12 (1 to 6, 1 to 6) Proseminar. Selected seminars investigating media problems or other subjects of topical importance to advanced journalism majors. Seminars will be offered as the need and the interest of students demand. Prerequisite: senior standing.

500-3 Research Methodology in Mass Communication I.

501-2 Research Methodology in Mass Communication II.

504-3 Foundations of Mass Communication Theory.

505-2 Theoretical Issues in Mass Communication.

506-3 Significant Studies in Mass Communication Research.

510-2 Literature of Journalism.

511-3 Studies in Journalism History.

512-2 Press Freedom and Censorship.

520-2 Communication and National Development.

530-2 Historical Research in the Mass Media.

540-3 Legal and Governmental Research in the Mass Media.

550-1 to 12 (1 to 4, 1 to 4, 1 to 4) Topical Seminar.

560-3 Seminar: Critical and Persuasive Writing.

592-1 to 6 (1 to 2, 1 to 2, 1 to 2) Individual Research.

599-1 to 6 Thesis.

600-1 to 32 Dissertation.

Language Arts and Social Studies (Major)

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Language Arts and Social Studies</i>	46 ¹
Language Arts Requirements	25
GSD 101, 117, 153	(7) + 1

GSC 200	(3)
GSC 365 or English 471 or 472	3
English 290, 300, 302, 309, 481	15
Curriculum, Instruction, and Media 361	3
Curriculum, Instruction, and Media 445	3
Social Studies Requirements	21
GSB 300, 301, U.S. history elective	(6) + 3
World history, 205 plus three hours at 300 or 400 level ...	6
GSB 212, Political Science 213	7
GSB 211 or an elective in either world history or political science	(3)
GSA 330, Geography 300	(3) + 3
GSB 203, 202, or 104	(3)
Curriculum, Instruction, and Media 469	2
Professional Education Requirements	24
See Teacher Education Program, page 63.	
Electives	5
Curriculum, Instruction, and Media 393, 402, 407, 455, or 462 strongly recommended.	
Total	120

¹Although the hours shown in parentheses are required for the major, they also will count toward the 45 hour requirement in General Studies.

Latin American Studies (Major)

Southern Illinois University at Carbondale traditionally has had a strong interest in Latin America. An unusually large number of faculty specialists offer many courses related to that region and Morris Library contains an outstanding collection of Latin American materials. The University initiated its Latin American Studies Program in 1958 to prepare students for careers in business, education, and government and to serve others who desired more information about the nations south of the United States. An interdisciplinary program, it includes training in language, the social sciences, and humanities. Beyond the minimum core of courses required for the major, maximum flexibility is provided to tailor the curriculum to the needs and interests of the individual student.

Latin American studies majors also complete a minor or other approved coherent program (usually 15 to 18 hours) in a standard discipline or career specialty.

The College of Liberal Arts grants the Bachelor of Arts degree with a major in Latin American studies. The Latin American Studies Advisory Committee supervises the program. Interested students should consult the adviser for the Latin American studies major.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 70.)	4-10
Requirements for Major in Latin American Studies	35
Required Core Curriculum	20
History 370a, b; Political Science 366; Anthropology 310b; Spanish 201a, b and 306	
Latin American Electives	15
Students may choose among 40 courses offered by eleven departments to fulfill this requirement.	
Minor	15-18

<i>Electives</i>	12-21
<i>Total</i>	120

Law Enforcement (Program, Major)

(ALSO SEE CORRECTIONAL SERVICES)

Law enforcement today demands a wide range of knowledge and ability to meet the complexities of modern society. This program is designed both for the individual entering the profession and for persons already serving in law enforcement who wish to upgrade their skills.

Students in this program will not be taught "police skills" that are taught in a police academy, such as firearms or personal defense. They will learn methods of crime control, criminal behavior, methods of crime detection, community problems in law enforcement, criminal law, and police administration. They will develop an understanding of people and of interpersonal relationships.

The student will spend one term prior to graduation working under supervision with a police agency.

Police officers may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their duty schedules.

Full transfer of credit is guaranteed to students who have completed certificate programs in law enforcement at cooperating community colleges.

An advisory committee made up of persons active in law enforcement assists the program. Current members are: Capt. Joe Ginter, commanding officer, Illinois State Police District 13, DuQuoin; W. Charles Grace, Jackson County Public Defender, Murphysboro; Howard Hood, Jackson County State's Attorney, Murphysboro; and James Rush, director of criminal justice planning, Greater Egypt Regional Planning and Development Commission, Carbondale.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in a combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Law Enforcement

GSB 202, 203, 212	11
GSD 101, 118, 153	8
Political Science 213	3
Sociology 372	4
Correctional Services/Law Enforcement 103, 105, 108, 115, 205, 209, 210, 215, 220, 221	36
Electives	5
<i>Total</i>	67

Courses

(SEE CORRECTIONAL SERVICES/LAW ENFORCEMENT)

Liberal Arts (College, Courses)

Courses

101-1 to 9 (1 to 3 per semester) Interdisciplinary Studies. This course may be offered in a variety of forms, including readings, lectures, or field study; the subject matter of the course

will vary. Initiated by at least two faculty members from different departments. Approval by the dean is required during the semester prior to its offering. May be repeated to a total of nine credits. Elective Pass/Fail.

105-3 Law in American Society. Faculty from the Departments of Economics, History, Philosophy, Political Science, Psychology, and Sociology consider the ways in which law affects American society. Topics such as students' rights, civil disobedience, crime, obscenity, and labor-management relations will be explored through lectures, discussion groups, guest speakers, and media presentations. Recommended for students who want to explore how the law works in society, and who want to consider possible careers in law. Elective Pass/Fail.

257-1 to 30 Concurrent Work Experience. For giving elective credit for concurrent work experience and internships related to liberal arts subjects when credit has been approved by department.

258-1 to 30 Work Experience. For giving elective credit for previous work experience related to liberal arts subjects when credit has been established by department evaluation.

259-2 to 45 Transfer Credit. For transfer of elective credits in liberal arts subjects when credit has been established by department evaluation. Prerequisite: junior standing.

300-1 to 3 Individual Interdisciplinary Readings. Readings of an interdisciplinary nature elected by the student with sponsorship by faculty from different disciplines. Concurrent registration in 301 or 302 beyond a total of three hours per semester requires the dean's permission. Prerequisite: advance approval by the dean. Elective Pass/Fail.

301-1 to 3 Individual Interdisciplinary Research. Research of an interdisciplinary nature elected by the student with sponsorship by faculty from different disciplines. Concurrent registration in 300 or 302 beyond a total of three hours per semester requires the dean's permission. Prerequisite: advance approval by the dean. Elective Pass/Fail.

302-1 to 3 Individual Interdisciplinary Field Study. Field study of an interdisciplinary nature elected by the student with sponsorship by faculty from different disciplines. Concurrent registration in 300 or 301 beyond a total of three hours per semester requires the dean's permission. Prerequisite: advance approval by the dean.

303-1 to 9 (1 to 3 per semester) Interdisciplinary Studies. Offered in a variety of forms, including lectures, readings, research, or field study. Initiated by at least two faculty members from different departments. Approval by the dean is required during the semester prior to its offering. May be repeated to equal a total of nine credits. Elective Pass/Fail.

310-3 Values in the Living World—Life, Normalcy, and the Natural. Intended for students who are interested in examining individual and social values which pertain to those professions based upon the biological sciences; e.g., medicine, nursing, zoology, forestry, etc. Elective Pass/Fail.

311-3 Values in the Communication Arts. The aim of this course is to examine, by means of readings, films and guest lecturers, some value perspectives of contemporary American life. This will be done in terms of ethical-aesthetic ideals and actual practices to be encountered in the public's most accessible and influential media; i.e., cinema, radio, television, and journalism. Elective Pass/Fail.

312-3 Applied Values in Society. A consideration of value problems and dilemmas faced by individuals in social science-based professions such as counseling, social welfare, administration of justice, etc. Among the problems to be considered are agency or corporate loyalty vs. individual conscience; individual good vs. social good; and professional ethics vs. individual ethics. Elective Pass/Fail.

Linguistics (Department, Major, Course)

The objective of the undergraduate major in linguistics is to provide broad, general training in theoretical and applied linguistics. The major is designed to help students achieve an awareness of the language systems of the past, and appreciation of human modes of communication, a fundamental understanding of the ever-changing linguistic environment in which they live, and the processes by which language is acquired. Moreover the analytical models of linguistics have, since the 1930's, been recognized by other disciplines (notably anthropology, psychology, and sociology) as significant research paradigms: education in linguistic methods trains a student to think analytically, to evaluate hypotheses, and to propose new solutions.

The major in linguistics consists of a minimum of 32 semester hours comprising: (1) 16-18 semester hours in a core of basic courses in general linguistics, 300 or 401, 301, 402a, 403 or 405, 408; and (2) various structured alternatives, dependent on whether the student is more interested in theoretical or applied linguistics. Stu-

dents concentrating on theoretical linguistics are required to take 9 semester hours of 415, 440, and either 430 or 450, plus 6 or 7 semester hours of departmental electives. Students concentrating on applied linguistics are required to take 8 semester hours of 453, 454, 455, plus 8 semester hours of 456, 415, and Speech Communication 440.

There is a foreign language requirement, potentially overlapping the College of Liberal Arts requirements, as follows: (1) one year of an uncommon or non-Western language, or (2) two years of any foreign language. Students planning graduate study in linguistics should take three years of foreign language study.

Bachelor of Arts Degree, College of Liberal Arts

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
<i>Requirements for Major in Linguistics</i>	32
Linguistics 300 or 401, 301, 402a, 403 or 405, 408	16-18
Theoretical Linguistics Electives: Linguistics 415, 440, 430 or 450, plus departmental electives	15-16
or	
Applied Linguistics Electives: Linguistics 453, 454, 455, 456, 415, plus Speech Communication 440	16
<i>Foreign Language Requirements</i> (overlapping with college requirements)	10-16
<i>Electives</i>	13-25
<hr/>	
<i>Total</i>	120

Minor

The Department of Linguistics offers two minors: one in linguistics and one in uncommon languages.

LINGUISTICS

The minor in linguistics (a minimum of 15 hours) draws upon the basic courses of the Department of Linguistics. It introduces the student to the structure of language, the historical development of languages, and the relation of language to the rest of culture. A minor in linguistics would be of special interest to students in anthropology, computer science, English, foreign languages and literatures, mathematics, philosophy, psychology, sociology, speech communication, and speech pathology and audiology.

Requirements for the minor in linguistics: (1) 300 or 401; (2) at least two courses (6-8 hours) from among the following: 301, 402a, 403, 405, 408; (3) additional courses from among the following to complete at least 15 hours: 402b, 402c, 404, 415, 430, 431, 440, 450, 453, 497.

UNCOMMON LANGUAGES

The minor in uncommon languages consists of a minimum of 15 hours at 200-level or above of an uncommon language offered by the Department of Linguistics. For specific languages, see course offerings.

Students interested in linguistics should also consider taking GSD 104 or GSB 330 to help satisfy the General Studies requirements.

Courses

100-6 (3, 3) Oral English for Foreign Students. Four class hours of oral English and one hour in-class composition. An elective of foreign students admitted to the University in a graduate or undergraduate program. Cannot substitute for Linguistics 101, 102, or 103, but may be taken concurrently. May be taken singly.

101-3 Basic English Composition for Foreign Students. Instruction in the basic methods of English composition, focusing on the particular problems of foreign students.

Techniques of analyzing, summarizing, outlining, documenting, synthesizing, and revising. Basic English grammar relevant to composition problems of foreign students. Equivalent to GSD 101. Limited to foreign students selected by proficiency exam on entrance.

102-2 Expository Writing for Foreign Students. Principles of expository essay style; study and practice in various techniques of expository writing. Directed at the particular problems of foreign students. Advanced study of English grammatical structures. Equivalent to GSD 117. Limited to foreign students. Prerequisite: 101 or equivalent.

103-2 Technical Writing for Foreign Students. Principles of scientific and technical writing in English as a second language. Study and practice of the techniques of technical report writing. Directed at the particular problems of foreign students. Advanced study of grammatical tools and organization required for technical prose. Equivalent to GSD 118. Limited to foreign students. Prerequisite: 101 or equivalent.

210-10 (5, 5) Elementary Uncommon Languages. Introduction to the basic skills of listening, speaking, reading, writing, and the fundamentals of grammar. Must be taken in sequence. (a-b) Arabic, (c-d) Hebrew, (e-f) Persian, (g-h) Vietnamese, (i-j) Lao, (k-l) Cambodian.

290-3 Advanced English Composition for Foreign Students. Designed for foreign graduate and undergraduate students who need further work in composition in English as a foreign language (EFL) beyond their entering TOEFL scores or successful completion of Linguistics 101 and either 102 or 103. Both group activities and individualized supervision will be provided. Prerequisite: 101 and either 102 or 103; or graduate status. Elective Pass/Fail.

300-3 Introduction to Descriptive Linguistics. An introductory survey of synchronic, descriptive linguistics: assumptions, methods, goals, terminology, and data manipulation. Elective Pass/Fail.

301-3 Introduction to Historical and Comparative Linguistics. An introductory survey of historical and comparative linguistics: assumptions, methods, goals, terminology, and data manipulation. Elective Pass/Fail.

320-3 Intercultural Communication. (See Speech Communication 320.)

321-3 Survey of Vietnamese Literature. Readings and analysis of selected works of Vietnamese literature from the beginning to the present time.

401-4 General Linguistics. Basic concepts and methods of general linguistics. Fundamentals of the nature, structure, and functioning of language. Data manipulation and problem solving. Elective Pass/Fail.

402-7 (3, 3, 1) Phonetics. (a) Theory and practice of articulatory phonetics. (b) Theory and practice of instrumental phonetics. Prerequisite: 402a. (c) Transcription laboratory. Prerequisite: 402a. May be taken singly. Elective Pass/Fail.

403-3 English Phonology. Study of English phonology, both American and British, including phonetics, phonemics, and prosodics. Prerequisite: 300 or 401, and 402a, or consent of department. Elective Pass/Fail.

404-3 American Dialects. Regional variation and social stratification of American English. Phonological and syntactic differences among the major dialects of American English. Prerequisite: one previous course in linguistics. Elective Pass/Fail.

405-4 Phonological Theory. Survey of pre-structural, structural (both American and European), distinctive feature, stratificational and generative phonological theories; phonological universals. Data manipulation and problem solving. Prerequisite: 300 or 401, and 402a. Elective Pass/Fail.

408-4 Syntactic Theory. Basic concepts and formalisms of transformational generative grammar. Data manipulation and problem-solving in English syntax. Prerequisite: 300 or 401, or consent of department. Elective Pass/Fail.

410-10 (5, 5) Intermediate Uncommon Languages. Review of the structure of modern spoken language. Introduction to written language. Emphasis on conversational style. The first semester carries undergraduate credit only. (g-h) Vietnamese, (i-j) Lao, (k-l) Cambodian. Prerequisite: 210 or equivalent.

411-3 The Linguistic Structure of Chinese. (See Chinese 410.)

412-3 The Linguistic Structure of Japanese. (See Japanese 410.)

415-3 Sociolinguistics. History, methodology, and future prospects in the study of social dialectology, linguistic geography, multilingualism, languages in contact, marginal languages, and language planning. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.

420-8 (4, 4) Advanced Uncommon Languages. Advanced conversation and reading of third-year level materials in preparation for classes conducted in the language. (g-h) Vietnamese, (i-j) Lao, (k-l) Cambodian. Prerequisite: 410 or equivalent.

422-3 Contemporary Vietnamese Prose. Open to advanced students. Short stories, novels, and essays (main trends and evolution). Emphasis on works of prominent authors since 1920, such as Nguyen V. Vinh, Pham Quynh, H. N. Phach, Nguyen T. Thuat, P. K. Binh, Khai Hung, and the recent generation. Prerequisite: 321 and 410.

423-2 Vietnamese Poetry. Classical and modern poetry. Emphasis on masterpieces and

leading figures such as Nguyen Trai, Nguyen Binh Khiem, the authors of Chinh Phý Ngam and Cung Oan, Nguyen Huy Tú, Nguyen Du and the Kim Van Kieu, Nguyen Cong Tru, and the new poetry with the impact foreign poetry had on it. Prerequisite: 321 and 410.

424-2 Modern Vietnamese Drama. Hat boi (Vietnamese Opera), Hat cheo (Popular Theater from North Vietnam), Cai luong (Modernized Opera and Musical), Thoai kich (Modern Theater), and Kich tho (Lyric Theater). Emphasis on the main plays, the stage techniques, and the literary and social meaning of those various forms of Vietnamese theater. Prerequisite: 321 and 410.

430-3 to 6 (3, 3) Grammatical Structures. Detailed analysis of the structure of particular languages. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.

431-3 Structure of the English Verb. An analysis of the English verb system. Special study of the modals and non-finites. Elective Pass/Fail.

440-1 to 6 (1 to 3 per topic) Topics in Linguistics. Selected topics in theoretical and applied linguistics. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.

445-4 Psycholinguistics and Language Teaching I. A broad spectrum introduction to psycholinguistics and its applications to language teaching and learning. Although both first and second language acquisitions are covered for completeness, emphasis is placed on topics relevant to second language acquisition.

450-3 to 6 (3, 3) Language Families. A synchronic survey of particular language families or sub-families. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.

453-4 Methods in Teaching English as a Second Language. Introduces the basic methods of teaching English as a second language, specifically as part of bilingual programs, and presents the theoretical premises and background from the fields of general linguistics, contrastive linguistics, psycholinguistics, education, and sociolinguistics. Elective Pass/Fail.

454-2 Observation and Practice in TESL. Lessons in teaching English as a second language are modeled and demonstrated live and via video-tape. In addition to micro-teaching and other peer-teaching, students observe ESL/EFL classes and laboratories and do tutoring and practice teaching under supervision as schedulable. Enrollment limited to undergraduates. Mandatory Pass/Fail.

455-2 Materials in TESL. Examination and criticism of currently used textbooks in ESL and bilingual education programs, as well as other printed materials and visual and mechanical aids in teaching English as a second language. Prerequisite: 453 or consent of department. Elective Pass/Fail.

456-1 Contrastive Linguistics Practicum. Examination of the interference of other languages, particularly Spanish, into the English of ESL learners on the levels of phonetics, phonology, morphology, syntax, lexicon, semantics, and orthography. Study of written and spoken errors, diagnosis of errors and development of techniques for correction. Prerequisite: 453 or consent of department. Elective Pass/Fail.

497-1 to 8 Readings in Linguistics. Directed readings in selected topics. Prerequisite: consent of department and undergraduate status.

501-3 Contrastive Linguistics.

504-3 Dialectology.

506-4 Historical Linguistics.

510-3 History of Linguistics.

530-3 to 6 (3, 3) Historical Grammatical Structures.

540-1 to 12 (1 to 3 per topic) Studies in Linguistics.

550-4 to 8 (4 per topic) Seminar in Linguistics.

570-3 Theory and Methods of EFL/ESL.

571-2 Language Laboratories in EFL/ESL.

572-2 Materials Preparation in EFL/ESL.

575-2 EFL/ESL Testing.

580-3 Seminar in Special Problems of EFL/ESL.

581-2 Practicum in EFL/ESL: Oral English.

585-2 Practicum in EFL/ESL: Written English.

593-1 to 4 Research in Linguistics.

596-3 Stylistics.

597-1 to 8 Readings in Linguistics.

599-1 to 6 Thesis.

Marketing (Department, Major, Courses)

Marketing deals with all activities required to link production of goods and services with their use. The emphasis in all courses is upon the development of an

analytical approach to the creative solution of marketing problems. The department will assist students in arranging suitable course sequences to prepare for careers in such fields as retailing, sales management, industrial marketing, physical distribution, promotional management, international marketing, and marketing administration.

Bachelor of Science Degree, College of Business and Administration

<i>General Studies Requirements</i>	45-46
<i>Professional Business Core (See page 61.)</i>	47-48
<i>Requirements for Major in Marketing</i>	21
Marketing 329, 363, 390, 493	12
Marketing Electives	9
<i>Electives</i>	5-7
<hr/>	
<i>Total</i>	120

Courses

- 304-3 Marketing Management.** Management of the firm's marketing function within a dynamic operating environment. Includes study of such functions as product development, promotion, channel selection, logistics and market research. Prerequisite: one course in accounting and one course in economics and junior standing or higher, or consent of the department.
- 305-3 Behavioral and Social Aspects of Marketing.** Examines underlying psychological, sociological, and economic factors which influence consumer behavior. Studies the impact of marketing activities on society, consumerism and legislation affecting the marketplace. Prerequisite: junior standing or higher, or consent of the department.
- 329-3 Marketing Channels.** The methods and processes used in the distribution of consumer and industrial products and services. Emphasis is upon the ways in which certain basic distribution functions are carried out in an integrated channel system. The role of a variety of manufacturers, wholesalers and retailers as parts of this system is analyzed. Prerequisite: 304 and junior standing or higher, or consent of the department.
- 335-3 International Marketing.** Analysis of international operations. Emphasis on the factors influencing marketing to and within foreign countries and the alternative methods of operations open to international firms. Prerequisite: 304 or consent of instructor and junior standing or higher, or consent of the department.
- 341-3 Transportation.** Organization and economic aspects of the United States transportation system, including rail, highway, air, pipeline, and water transportation. Regulatory problems of transportation. Current transportation developments and situations. Prerequisite: 304 and junior standing or higher, or consent of the department.
- 350-3 Entrepreneurship and Venture Initiation.** Deals with principles involved in locating market opportunities and developing growth plans for businesses requiring a relatively low initial capital investment. Taught from the point of view of the owner-manager relying heavily upon case examples of successful entrepreneurship. Prerequisite: 304 or consent of department.
- 363-3 Promotional Concepts.** The role of promotional activities in the firm's marketing function—advertising, personal selling, sales promotion and publicity. The relationship of consumer behavior to the area of promotion. Prerequisite: 304 and junior standing or higher, or consent of the department.
- 390-3 Marketing Research and Analysis.** The basic procedures and theories appropriate to solving various types of marketing problems in the context of business organization and decision models. Prerequisite: 304 and Administrative Sciences 208 and junior standing or higher, or consent of the department.
- 401-3 Retail Management.** Designed to present the basic principles in decision areas such as location, layout, organization, personnel, merchandise control, sales promotion, advertising, etc. Retail merchandising through managerial perspective. Prerequisite: 304 and junior standing or higher, or consent of the department.
- 438-3 Sales Management.** Analysis of the management of the sales effort within the marketing system. Philosophies, concepts, and judgment criteria of the sales function in relationship to the total marketing program. Prerequisite: 304 and junior standing or higher, or consent of the department.
- 439-3 Industrial Marketing.** Analysis of decision criteria related to the marketing of industrial products. Emphasis on program development, formulation of a marketing mix, and the behavioral relationships in the modern industrial organization. Prerequisite: 304 and junior standing or higher, or consent of the department.
- 452-3 Physical Distribution Management.** Integration of physical distribution activities

of the firm into a system. Transportation and location as elements of the system. Inventories and service as constraints upon the system. Planning, operation, organization, and management of the system. Prerequisite: 304 and junior standing or higher, or consent of the department.

463-3 Advertising Management. Advertising from the viewpoint of business management. Develops an understanding of the role of advertising under various conditions. Problems of integrating advertising strategy into the firm's total marketing program. Prerequisite: 304 and junior standing or higher, or consent of the department.

493-3 Marketing Policies. A comprehensive and integrative view of marketing policy formulation. Marketing decisions analyzed and discussed. Prerequisite: 329, 363, and 390 (not more than one to be taken concurrently); junior standing or higher, or consent of the department.

495-3 Quantitative Techniques in Marketing. An introduction to and survey of mathematical tools of decision making in marketing situations. Application of these techniques to the analysis of marketing problems is emphasized. Prerequisite: 304 and Mathematics 117 or 140 and junior standing or higher, or consent of the department.

499-1 to 6 (1 to 3, 1 to 3) Marketing Insights. Provides the student an opportunity to participate in an internship program, independent study, or seminar coinciding with his areas of interest. May be repeated for credit only when topics vary. Prerequisite: junior standing or higher, and approval of the department chairman in the semester prior to enrollment.

Mathematics (Department, Major, Courses)

Students intending to major in mathematics must plan schedules of mathematics courses numbered above 299 with a mathematics adviser. At least a C is required in all mathematics courses used to satisfy departmental requirements.

Bachelor of Arts Degree, College of Liberal Arts

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements (See page 70.)</i>	(4) + 8-14
<i>Requirements for Major in Mathematics</i>	37
Mathematics 150 (151 or 159 may substitute), 250 (259 may substitute), 251, 221	(4) + 10
Computer Science 202	(3)
Mathematics electives: seven courses at the 300-400 level, of which at least four are at the 400 level, excluding 301, 311, 313, 314, 400, 411, 432, but including 319 (or 419) and 352 (or 452)	21
Foreign Language (French, German, or Russian recom- mended)	(8)
Six hours in one of the following areas, selection to be after the approval of the department: (a) engineering, (b) computer sci- ence, (c) any department in the College of Science, (d) economics, (e) College of Business and Administration	6
<i>Electives</i>	24-30
<i>Total</i>	120

Bachelor of Science Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>College of Science Requirements</i>	12
Foreign Language (listed under major)	
Biological Sciences (not General Studies)	6
Physical Sciences (not General Studies)	6
<i>Requirements for Major in Mathematics</i>	38
Mathematics 150 (151 or 159 may substitute), 250 (259 may substitute), 251, 221	(4) + 10
Computer Science 202	3

Mathematics electives: seven courses at the 300-400 level, of which at least four are at the 400 level, excluding 301, 311, 313, 314, 400, 411, 432, but including 319 (or 419) and 352 (or 452)	21
Foreign Language (French, German, or Russian recommended) (4) + 4	
Electives	25
Total	120

¹The 45 hour requirement may be reduced by taking College of Science requirements which are approved substitutes for General Studies courses.

Bachelor of Science Degree, College of Education

Students in the College of Education with a major in mathematics must plan schedules of mathematics courses numbered above 199 with a mathematics adviser. Grades must be at least a C in mathematics courses numbered 150 or above used to satisfy these requirements.

General Studies Requirements	45 ¹
Requirements for Major in Mathematics	33-34
Mathematics 150 (151 or 159 may substitute), 250 (259 may substitute)	(4) + 4
Mathematics 221	3
A student may take some of the above courses by proficiency examination or may substitute honors calculus for calculus.	
Computer Science 202	3
Mathematics 311, 319, (or 419), 335, and 352 (or 452)	13
Mathematics 319E and 352E	2
At least 3 additional mathematics courses numbered above 399	8-9
Professional Education Requirement	24
See Teacher Education Program, page 63.	
Electives	17-18
Total	120

¹See Catalog section titled Secondary Education for specific certification requirements.

Unconditional admission into the Teacher Education Program in mathematics requires a 2.5 average in mathematics courses numbered above 149, including a grade of C or better in at least two mathematics courses numbered above 299 (not including Mathematics 311, 313, 314, 400, 411, or 432 or courses formerly numbered 321, 410, 411, 412.)

Approval for student teaching requires a grade of C or better in Mathematics 311 and a 2.25 average in mathematics courses numbered above 299, including a grade of C or better in at least four other mathematics courses (not including Mathematics 313, 314, 400, 411, or 432 or courses formerly numbered 321, 410, 411, 412). Students with a minor in mathematics must also meet this requirement to student teach in mathematics.

Minor

A non-teaching minor consists of Mathematics 150, or 140, or equivalent and 12 hours of mathematics credit at the 200 level or above, including at least one course at the 400 level (excluding 301, 311, 313, 314, 400, 411, and 432). Courses should be approved by a mathematics departmental adviser. Elementary and secondary education students interested in a mathematics minor should see a mathematics departmental education adviser to obtain a current list of specific requirements. A

grade of *C* or better must be earned in all courses used to meet minor requirements.

Honors

Mathematics 159 and 259 provide honors material in calculus and analytic geometry for properly qualified freshman and sophomore students. Mathematics 395 and 495 are used for individual honors work for upper level undergraduates in mathematics.

Courses

101-1 Mathematics Review for Pre-Law. Sample questions and problems related to mathematics and law school admission examinations. Fall only. Two hours weekly for half-semester. Mandatory Pass/Fail.

110-5 (3, 2) College Algebra and Trigonometry. A two-semester sequence version of the course Mathematics 111. Students with two or more years of high school algebra and no trigonometry should begin with 110b. Credit is not given for both 110 and 111. Prerequisite: GSD 107 or one and one-half years of high school algebra or the equivalent. Elective Pass/Fail.

111-5 College Algebra and Trigonometry. For students with one and one-half years of high school algebra who intend to take 150. The algebra of functions; exponential, logarithmic, and trigonometric functions; functions of two variables. Credit is not given for both 110 and 111. Prerequisite: GSD 107 or one and one-half years of high school algebra or the equivalent. Elective Pass/Fail.

114-4 Algebraic and Arithmetic Systems. Whole numbers, integers, rational numbers, and real numbers; numeration systems; algorithms; number theory; elementary algebra. Successful completion of this course requires a passing grade on a basic skills test of minimal mathematical proficiency. This course can be used to satisfy the mathematics requirement in General Studies. Prerequisite: one year of high school algebra or GSD 106 or equivalent.

116-5 Finite Mathematics and Algebra. Topics from intermediate algebra and college algebra, systems of linear equations, matrix algebra, Gauss-Jordan row reduction, elementary probability theory, emphasis on business applications. Credit is not given for both 116 and 139. If there is prior credit in GSD 107, 110a, or 111, only 3 hours of credit for 116 may be applied to graduation requirements. This course can be used to satisfy the mathematics requirement in General Studies. Prerequisite: one year of high school algebra or GSD 106.

117-5 Finite Mathematics and Calculus. A continuation of 116. Linear programming, Markov chains, topics in algebra, elementary differential calculus, max-min problems emphasizing business applications, partial derivatives, elementary integral calculus with applications in economics. Credit hours for both 117 and 139 or for both 117 and 140 may not be applied to fulfillment of degree requirements. Prerequisite: 116.

139-3 Finite Mathematics. Set concepts and operations, combinations, permutations, elementary probability theory including Bayes formula, linear systems of equations, matrix algebra, Gauss-Jordan row reduction, introduction to linear programming. Credit is not given for both 116 and 139 nor for both 117 and 139. Prerequisite: GSD 107 or one and one-half years of high school algebra.

140-4 Short Course in Calculus. Techniques of differentiation, increasing and decreasing functions, curve sketching, max-min problems in business and social science; partial derivatives, LaGrange multipliers, elementary techniques of integration. Credit hours for both 117 and 140 may not be applied to fulfillment of degree requirements. No credit hours for 140 may be applied to fulfillment of degree requirements if there is prior credit in 150. Prerequisite: GSD 107 or one and one-half years of high school algebra.

150-4 Calculus I. Treatment of the major concepts and techniques of single-variable calculus, with careful statements but few proofs. Differential and integral calculus of the elementary functions with associated analytic geometry. Students interested in honors credit should see Mathematics 159. If there is prior credit in 140, only 2 hours of credit for 150 may be applied to graduation requirements. Prerequisite: 111 or equivalent. Elective Pass/Fail.

151-5 Calculus I with Algebra. Designed to include a modest review of high school algebra and trigonometry as well as all course material in 150. Credit is not given for both 150 and 151 nor for both 159 and 151. Prerequisite: three years of high school mathematics including two years of algebra, and one-third year of trigonometry, and an ACT score greater than 50, or consent of department.

159-4 Honors Calculus I. Honors version of 150. Careful treatment of the major concepts and techniques of single-variable calculus. Credit is not given for both 150 and 159. Prerequisite: consent of department.

221-3 Introduction to Linear Algebra. Vector spaces, linear functions, systems of equations, dimensions, determinants, eigenvalues, quadratic forms. Prerequisite: 150. Elective Pass/Fail.

250-4 Calculus II. Develops the techniques of single-variable calculus begun in Calculus I and extends the concepts of function, limit, derivative, and integral to functions of more than

one variable. The treatment is intuitive, as in Calculus I. Techniques of integration, introduction to multivariate calculus, elements of differential equations. Students interested in honors credit should see Mathematics 259. Prerequisite: 150. Elective Pass/Fail.

251-3 Calculus III. Further topics in calculus. Definite integrals over solid regions, applications of partial derivatives, vectors and vector operators, derivative of vector function, line integrals, Green's theorem. Prerequisite: 250. Elective Pass/Fail.

258-1 to 12 Work Experience. As an instructional aide, the student will do tutoring under the direction of an established teacher and under the supervision of a representative of the Department of Mathematics. Prerequisite: consent of department. Mandatory Pass/Fail.

259-4 Honors Calculus II. An honors version of 250. Develops the techniques of single-variable calculus and extends the concepts of function, limit, derivative, and integral to functions of more than one variable. Credit is not given for both 250 and 259. Prerequisite: 159 or consent of department.

280-3 Introduction to Probability Theory. Probability as a mathematical system, random variables and their distributions, limit theorems, topics in statistical inference. Prerequisite: 150 (250 recommended). Elective Pass/Fail.

282-3 Introduction to Statistics. Designed to introduce beginning students to basic concepts, techniques, and application of statistics. Topics to include the following: organization and display of data, summation notation, measure and dispersion, permutations, combinations and elementary probability, binomial, normal and Poisson distribution, random sampling, hypothesis testing, student t-distribution, correlation and regression, nonparametric statistics, Chi-square distribution. Prerequisite: three semester hours of college mathematics beyond general studies mathematics; e.g., any of the following courses: 111, 117, or 139 would satisfy the prerequisite. Elective Pass/Fail.

283-3 Introduction to Applied Statistics. Experiment motivated in that the statistical concepts are developed to answer questions that arise from experiments that the class performs. Statistical concepts discussed are descriptive statistics, sampling distributions, expectation, correlation, probability sampling, randomization and control in experimentation, least squares estimation, confidence intervals, nonparametric tests. Also the student is given experience in writing up experiments. Prerequisite: 140 or equivalent. Elective Pass/Fail.

301-3 Introduction to Discrete Structures. (Same as Computer Science 342.) Sets, relations, and functions. Elements of graph theory with emphasis on algorithms and applications to computing problems. Boolean algebras with applications to computer logic and logical design. Prerequisite: 111 and Computer Science 202 or consent of either department.

305-3 Introduction to Ordinary Differential Equations I. Solution techniques for differential equations with emphasis on second order equations, applications to physical sciences, numerical methods. Prerequisite: 250. Elective Pass/Fail.

306-3 Introduction to Ordinary Differential Equations II. Laplace transforms and Fourier series with applications to ordinary and partial differential equations. Systems of first order differential equations, stability. Prerequisite: 305 and 221 or consent of instructor. Elective Pass/Fail.

311-4 Teaching of Secondary Mathematics. The nature and objectives of the secondary mathematics curriculum. Particular attention is given to the means of introducing new ideas into the high school program. For students preparing to be certified teachers of secondary mathematics. Three lectures and two laboratory hours per week. Does not count toward a mathematics major for Bachelor of Arts degree students. Prerequisite: 319, 319E, and 335.

313-3 Mathematical Insights. Introduction to the conceptual aspects of modern mathematics. Starting with simple questions about such things as sets, area, and games, the student is led to an appreciation of the necessity for preciseness in a mathematical theory. Prerequisite: completion of the general studies mathematics requirement. Elective Pass/Fail.

314-3 Topics in Mathematics for Elementary Teachers. Measurement, metric system; geometric figures, transformations; symmetry, congruence, similarity; combinatorics, probability. This course may not be used to satisfy requirements for a mathematics major. Prerequisite: 114 or consent of department.

319-3 Introduction to Abstract Algebra. Basic properties of groups and rings: Binary operations, groups, subgroups, permutations, cyclic groups, iso-morphisms, Cayley's theorem, direct products, cosets, normal subgroups, factor groups, homomorphisms, rings, integral domains. Prerequisite: 250; plus for secondary education majors, concurrent enrollment in 319E. Elective Pass/Fail.

319E-1 Modern Algebra as Applied to the Secondary Schools. Two hours per week. The applicability of the concepts of modern algebra, particularly the field axioms and the function concept, to the secondary curriculum. Prerequisite: concurrent enrollment in 319. Elective Pass/Fail.

335-3 Concepts of Geometry. An elementary introduction to various geometric systems to acquaint the students with the inter-relationship between geometries of current interest. Topics include axiom systems, absolute plane geometry, Euclidian geometry, and non-Euclidean geometry. Prerequisite: 221 or 250. Elective Pass/Fail.

351-3 Vector Analysis. The algebra of vectors; vector valued functions; the gradient, divergence, and curl operators in cartesian coordinates; volume, surface, and line integrals; the Gauss and Stoke's theorems; Green's identities; curvilinear coordinates and coordinate transformations; coordinate-free definitions for the gradient, divergence, curl, and Laplacian operators; invariance properties of these operators. Prerequisite: 250. Elective Pass/Fail.

352-3 Introduction to Analysis. A rigorous treatment of concepts introduced in elementary calculus, such as real number system, limits and continuity, derivatives, integration, transcendental functions. Prerequisite: 250; plus for secondary education majors, concurrent enrollment in 352E. Elective Pass/Fail.

352E-1 Analysis as Applied to the Secondary Schools. Two hours per week. Sequences, series, infinite decimals, continuity. Applications to the secondary curriculum. Prerequisite: concurrent enrollment in 352. Elective Pass/Fail.

361-3 Numerical Calculus. (See Computer Science 361.)

383-3 Introduction to Linear Models. Elementary course in multiple linear regression and analysis of variance, emphasizing applications as opposed to theory. Students learn to read print-outs of standard canned statistical packages (e.g., SPSS). Linear models, response surfaces, time series, elementary design techniques, least squares prediction, F-tests in Anova, the use of canned programs. Not for mathematics majors. Prerequisite: 282 or 283 and 116 or 139; or consent of instructor.

395-1 to 6 Readings in Mathematics. Supervised reading in selected subjects. Prerequisite: 3.00 grade point average in mathematics and consent of chairman.

400-2 History of Mathematics. An introduction to the development of major mathematics concepts. Particular attention given to the evolution of the abstract concept of space, to the evolution of abstract algebra, to the evolution of the function concept, and to the changes in the concept of rigor in mathematics from 600 B.C. Prerequisite: 319 and 352 or consent of instructor. Elective Pass/Fail.

405-3 Intermediate Ordinary Differential Equations. Topics selected from linear systems, existence and uniqueness for initial value and boundary value problems, oscillation, and stability. Prerequisite: 306. Elective Pass/Fail.

406-3 Eigenfunction Methods in Applied Mathematics. Inner product spaces; orthonormal systems; Bessel's inequality; quadratic forms; Hermitian operators; eigenfunctions and eigenvalues; minimization properties of eigenfunctions; the spectral theorem for a Hermitian matrix; functions of matrices; Sturm-Liouville differential operators; convergence properties of Fourier Series; the Legendre, Laguerre, Hermite, and Tchebycheff families of orthogonal polynomials; functions of a Sturm-Liouville operator; Green's functions; the Laplacian operator in 1, 2, and 3 dimensions. Prerequisite: 221 and 305. Elective Pass/Fail.

407-3 Introduction to Partial Differential Equations. First order linear and quasilinear partial differential equations, characteristics, second order linear partial differential equations, classification of types, boundary value and initial value problems, well posed problems, the wave equation, domain of dependence, range of influence, Laplace's equation and Dirichlet problems, the maximum principle. Poisson's integral, fundamental solution of the heat solution. Prerequisite: 305. Elective Pass/Fail.

411-1 to 6 (1 to 3, 1 to 3) Mathematical Topics for Teachers. Variety of short courses in mathematical ideas useful in curriculum enrichment in elementary and secondary mathematics. May be repeated as topics vary. Does not count toward a mathematics major. Elective Pass/Fail.

417-3 Applied Matrix Theory. Matrix algebra and simple applications, simultaneous linear equations, linear dependence and independence of vectors, rank and inverses, determinants, eigenvalues and eigenvectors, quadratic forms, applications. This course may not be counted toward a graduate degree in mathematics. Prerequisite: 139 or 221 or consent of department. Elective Pass/Fail.

419-4 Algebraic Structures I. Groups, subgroups, normal subgroups and homomorphism theorems, permutation groups, finite direct products, finite abelian groups, p-groups and Sylow's theorem, normal and subnormal series, Jordan Holder theorem. Rings and subrings, divisibility theory in integral domain, polynomial rings. Prerequisite: 319 or consent of department. Elective Pass/Fail.

421-3 Linear Algebra. Fields, vector spaces over fields, triangular and Jordan forms of matrices, dual spaces and tensor products, bilinear forms, inner product spaces. Prerequisite: 221. Elective Pass/Fail.

425-3 Theory of Numbers. Properties of integers, primes, divisibility, congruences, quadratic forms, diophantine equations, and other topics in number theory. Prerequisite: 319 or consent of department. Elective Pass/Fail.

426-3 Introduction to Mathematical Logic. (Same as Philosophy 426.) General introduction to the method of mathematical logic, forming of denials, the statement calculus including the deduction and completeness (with respect to truth tables) theorems, and the predicate calculus including the deduction theorem, deduction techniques; (in the predicate calculus) normal forms and equality, first order theories, first order number theory, consistency, truth (in the model-theoretic sense), completeness theorem (with respect to the model-theoretic

definition of validity), independence, categoricity, decidability, and a brief introduction to Gödel's theorem. Prerequisite: 301, 319, 352, or Philosophy 320. Elective Pass/Fail.

432-4 Philosophy of Mathematics. (See Philosophy 432.) Prerequisite: Philosophy 320 or 15 hours of mathematics. Elective Pass/Fail.

433-3 Introduction to Topology. Study of continuity, convergence, compactness, and completeness in the context of metric spaces. Prerequisite: 352 or consent of department. Elective Pass/Fail.

435-3 Elementary Differential Geometry. An introduction to modern differential geometry through the study of curves and surfaces in \mathbb{R}^3 . Local curve theory with emphasis on the Serret-Frenet formulas; global curve theory including Fenchel's theorem; local surface theory motivated by curve theory; global surface theory including the Gauss-Bonnet theorem. Prerequisite: 251 and 221. Elective Pass/Fail.

437-3 Elementary Algebraic Topology. Topological spaces; continuous maps. Finite products. Connectivity. Compactness. Manifolds. Classification of surfaces. Homotopic maps. Fundamental group. Covering spaces. Lifting theorem. Prerequisite: 319. Elective Pass/Fail.

445-3 Boolean Algebra and Logical Design. (Same as Computer Science 445.) Boolean algebra with applications to computer logic and circuit design. Simplification algorithms. Sequential circuits and sequential machines. Introduction to error-correcting codes. Prerequisite: 319, 301 or Computer Science 342.

449-3 Combinatorics and Graph Theory. (Same as Computer Science 449.) An introduction to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion. Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 301, or consent of Mathematics Department.

451-3 Introduction to the Theory of Computing. (See Computer Science 451.)

452-4 Advanced Calculus. Fundamental concepts of analysis; infinite series, functions and series of functions, uniform convergence, functions of bounded variation, Riemann-Stieltjes integral, functions of several variables, implicit functions and extreme values. Prerequisite: 352 or consent of department. Elective Pass/Fail.

455-3 Introduction to Complex Analysis and Applications. Complex numbers, analytic functions, line integrals, the Cauchy-Goursat theorem and its implications, power series, Laurent series, polar and essential singularities, analytic continuation, contour integration, and the residue theorem, conformal mapping, asymptotic expansions. Prerequisite: 251. Elective Pass/Fail.

457-5 Methods of Quantitative Analysis. (Same as Business Administration 451.) Introductory survey of basic quantitative methods necessary for graduate study in business; designed for students with deficiencies in methods of quantitative analysis. Course consists of introduction to calculus, matrix algebra, and probability. Extensive use is made of business examples. Prerequisite: enrollment in Master of Business Administration program or consent of instructor.

460-3 Transformation Geometry. Geometry as the study of properties invariant under congruences, similarities, affine transformations, and projectivities. Prerequisite: 221 and 319. Elective Pass/Fail.

471-3 Introduction to Optimization Techniques. (Same as Computer Science 471.) Nature of optimization problems. General and special purpose methods of optimization, such as linear programming, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 221, 250, Computer Science 202.

472-3 Linear Programming. (Same as Computer Science 472.) Nature and purpose of the model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimality analysis. Prerequisite: 139 or 221; and Computer Science 202.

473-3 Reliability Theory. Formulation of the concept of reliability in terms of probability theory. Failure distributions and failure rates. Elements of renewal theory. Age and block replacement policies, optimal replacement policies for classes of failure distributions. Prerequisite: consent of department. Elective Pass/Fail.

475-6 (3, 3) Numerical Analysis. (Same as Computer Science 464.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 221, 250, Computer Science 202.

480-4 Introduction to Probability. This is a comprehensive introduction to probability theory at a level suited to most upper division undergraduates and first year graduate students. Topics include: event spaces, probability functions, combinatorics, generating functions, conditional probability, independence, random variables, probability distributions, expectations, moments, characteristic functions, inversion formulae, sums of independent random variables, the multivariate normal distributions, the central limit theorem, the

weak and strong laws of large numbers, Monte Carlo applications. Prerequisite: 250. Elective Pass/Fail.

481-3 Elements of Stochastic Processes. An introduction, including normal, Poisson, and Markov processes. Prerequisite: 480. Elective Pass/Fail.

483-3 Introduction to Mathematical Statistics. A development of the elements of statistical theory. Probability axioms, probability distributions, moments and moment generating functions. Statistical inference, estimation, testing hypotheses. Not for graduate credit in mathematics. Prerequisite: 250. Elective Pass/Fail.

486-3 Design of Experiments. A mathematical model development of the statistical design and analysis of experiments with emphasis on practical applications. Includes completely randomized, randomized block, Latin square, split plot, incomplete block, and response surface designs, as well as factorial and fractional factorial experiments. Prerequisite: 483. Elective Pass/Fail.

487-3 Nonparametric Methods in Statistics. A discussion of confidence intervals and tests of hypotheses where no functional form is postulated for the population. Prerequisite: 483 or 480. Elective Pass/Fail.

488-3 Linear Statistical Models. An introduction to the general linear model in both the univariate and multivariate cases and its applications. Included is a basic discussion of linear models, estimable functions, estimation spaces, error spaces, and such applications as regression analysis, growth curve analysis, discriminant analysis and canonical analysis. Prerequisite: 221 and 483. Elective Pass/Fail.

495-1 to 6 Special Topics in Mathematics. Individual study or small group discussions in special areas of interest under the direction of a member of the faculty. Prerequisite: consent of chairman and instructor. Elective Pass/Fail.

501-3 Real Analysis.

505-3 Ordinary Differential Equations.

506-1 to 9 Advanced Topics in Ordinary Differential Equations.

507-3 Partial Differential Equations.

508-3 Integral Equations.

510-3 Mathematical Logic.

512-3 to 12 (3 per topic per semester) Topics in Mathematical Logic.

514-4 General Statistical Analysis.

515-4 Linear and Multivariate Statistical Methods.

516-8 (4, 4) Statistical Analysis in the Social Sciences.

520-3 Algebraic Structures.

522-3 to 9 per topic (3, 3, 3) Advanced Topics in Algebra.

525-3 Number Theory.

526-3 to 9 per topic (3, 3, 3) Advanced Topics in Number Theory.

528-3 Formal Languages and Automata.

529-3 Theory of Computability.

530-3 General Topology.

531-3 Algebraic Topology.

532-3 to 9 per topic (3, 3, 3) Advanced Topics in Topology.

536-3 Differential Geometry.

537-3 to 9 per topic (3, 3, 3) Advanced Topics in the Topology and Geometry of Manifolds.

550-1 to 6 per topic (1 to 3 per semester) Seminar.

551-3 Introduction to Functional Analysis.

552-3 to 9 per topic (3, 3, 3) Special Topics in Analysis.

553-3 to 9 (3, 3, 3) Special Topics in Functional Analysis.

555-3 Complex Variables.

560-3 Calculus of Variations.

567-6 (3, 3) Econometrics I and II.

572-3 to 9 per topic (3, 3, 3) Advanced Numerical Analysis.

580-3 Statistical Theory.

581-3 Probability.

582-3 to 6 per topic (3, 3) Advanced Topics in Probability and Statistics.

595-1 to 6 per topic Special Project.

599-1 to 6 Thesis.

600-1 to 30 Dissertation.

Medical Education Preparation (Courses)

Courses

400-1 to 6 (1 per semester) Medprep Seminar. Seminar on social, professional, and scientific issues of interest to students planning a career in medicine or dentistry. Topics: (a)

Orientation; (b) Medical/dental seminar. Required of medprep participants. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to medprep students. Must be taken in a,b sequence. Mandatory Pass/Fail.

401-1 to 20 (1 to 2 per area) Medprep Basic Skills. Focus on skills critical for academic success in preprofessional and professional training. Areas: (a) Learning Skills; (b) Science process skills; (c) Quantitative skills; (d) Perceptual motor skills; (e) Interpersonal skills; (f) Reading skills; (g) Written communication skills; (h) Vocabulary skills; (i) Speed reading; (j) Other. All areas required or proficiency demonstrated within the first year in program. Not for graduate credit. Prerequisite: restricted to Medprep students. Areas c, d, e, f, g, and i are Mandatory Pass/Fail.

402-1 to 12 (1 to 2 per topic) Medprep Special Problems. Seminars, workshops, lectures, and field experiences related to preparing the student for medical/dental school and careers in medicine or dentistry. Topics: (a) MCAT/DAT orientation; (b) Research seminar; (c) Clinical experience; (d) Independent research; (e) Independent readings; (f) Other. Topic (b) required of all medprep participants. May be taken for graduate credit only with written permission of the relevant department and graduate dean. Prerequisite: restricted to medprep students. Topic (c) Mandatory Pass/Fail.

403-1 to 15 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3) Medprep Biology Tutorial. Depending on individual need content will be remedial, supplementary to concurrent biological science courses, or additional permitting acceleration. Sections will be (a) Genetics; (b) Anatomy, (c) Physiology, (d) Embryology, (e) Microbiology, (f) Zoology, (g) Special. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to Medprep students or consent of instructor.

404-1 to 14 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3; 1 to 3) Medprep Chemistry Tutorial. Depending on individual need content will be remedial, supplementary to concurrent preprofessional chemistry courses (Chemistry 222a,b; 344 and 346; and 450) or additional permitting acceleration. Sections will be (a,b) Inorganic; (c,d) Organic; (e) Biochemistry; (f) Other. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to Medprep students.

405-1 to 4 (1 to 2, 1 to 2) Medprep Physics Tutorial. Depending on individual need content will be remedial, supplementary to concurrent preprofessional physics courses or additional permitting acceleration. Sections will correspond to two semester physics sequences. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to Medprep students.

Microbiology (Department, Major, Courses)

Microbiology deals with the study of microorganisms, examining various forms, their classification, growth, reproduction, heredity, biochemistry, ecology, and their relationship to other living organisms including humans. The following program of study prepares one for laboratory or teaching positions after the bachelor's degree or for graduate study leading to advanced degrees. Students who anticipate the pursuit of higher degrees in microbiology are strongly urged to continue their study of chemistry through physical chemistry, which is an entrance requirement to graduate study in microbiology at many institutions.

Opportunities for specialized training in diagnostic bacteriology, virology, immunology, genetics, biochemistry, and industrial processes are available.

Bachelor of Arts Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>Supplementary College of Science Requirements</i>	5
Mathematics 110a,b or 111 (or its equivalent), or 140	(4) + 1
Foreign Languages	(4) + 4
<i>Requirements for Major in Microbiology</i>	65-69
Microbiology 301, 302	7
Microbiology electives: senior level work consisting of 16-20 lecture credits and a minimum of 9 laboratory credits	25-29
Two from: Biology 305, 306, 307, 308, 309	6 ²
Chemistry 222a,b, 344, 345, 346, 347	19 ²
Physics 203a,b and 253a,b	8 ²

<i>Electives</i>	1-5
<i>Total</i>	120

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
²These courses will meet the biological and physical science requirements for the College of Science and may be substituted for a maximum of 12 hours in General Studies.

Minor

A minor in microbiology consists of 16 semester hours, to include 301, 302, and other courses determined by the student in consultation with his microbiology adviser.

Courses

201-4 Elementary Microbiology. Basic concepts of microbiology, classification, metabolic activity and the effect of physical and chemical agents on microbial populations. Host-parasite interactions. Infectious agents, particularly as they affect the oral cavity; methods of transmission and control. Prerequisite: for students of dental hygiene.

301-4 Principles of Microbiology. Morphology, structure, metabolism, population dynamics, and heredity of the microbial agents with emphasis on pure culture methods of study of bacteria, viruses, and related organisms. Three hours lecture, three hours laboratory. Fall and Spring. Prerequisite: one year of college chemistry and GSA 115, or equivalent. Elective Pass/Fail.

302-3 General Microbiology. Methods of differentiation and classification of bacteria; their biochemical activities; genetics and biological and physiological interrelationships. Two hours lecture and three hours laboratory. Prerequisite: 301. Elective Pass/Fail.

403-2 Medical Bacteriology Lecture. A survey of the mechanisms of infection, epidemiology, and immunity and the specific application of these principles to the symptomatology, diagnosis, treatment, and control of the more common bacterial infections of man. Two hours lecture. Fall semester. Prerequisite: 301.

404-2 Medical Bacteriology Laboratory. Procedures for the collection and handling of medical specimens for microbial examination and for cultivation and identification of the pathogenic organisms by their morphological, biochemical, and serological characteristics and the fundamental role of the bacteriologist in the diagnosis of infectious diseases. Four hours laboratory. Fall semester. Prerequisite: 403 or concurrent enrollment.

421-3 Foods and Industrial Microbiology Lecture. The relationships of microorganisms to the preparation and preservation of foods; their application to the industrial production of beverages, foods, antibiotics, and other commercial products. Consideration of sanitation, pollution, and recycling of waste products into useful materials. Pure food and drug regulations. Three hours lecture. Prerequisite: 301.

422-2 Foods and Industrial Microbiology Laboratory. Methods for preparation, preservation, sanitary inspection, and analyses of foods and industrial products. Four hours laboratory. Prerequisite: 421 or concurrent enrollment.

425-4 (2, 2) Biochemistry and Physiology of Microorganisms Lecture. Chemical composition, cellular structure, and metabolism of microorganisms. Prerequisite: organic chemistry.

426-4 (2, 2) Biochemistry and Physiology of Microorganisms Laboratory. Prerequisite: 425a,b or concurrent enrollment.

441-3 Virology Lecture. General properties; classification and multiplication of bacterial and animal viruses; lysogeny; immunological and serological reactions; relation of viruses to cancer; consideration of selected viral diseases of animals. Prerequisite: 301 and 302.

442-2 Virology Laboratory. Tissue culture methods, multiplication and assay of animal and bacterial viruses, purification, electron microscopy, interference, immunity. Five hours laboratory. Prerequisite: 441 or concurrent enrollment.

451-3 Immunology Lecture. Natural and acquired immunity. Antigens, antibodies, and antigen-antibody reactions in vitro and vivo. Three hours lecture. Prerequisite: 403.

452-2 Immunology Laboratory. Natural defense mechanism and immune response, preparation of antigens and antibodies, serological reactions, conjugated antibodies, electrophoresis, immunological reactions in vivo. Five hours laboratory. Prerequisite: 451 or concurrent enrollment.

453-3 Clinical Microbiology and Immunology Lecture. Lectures dealing with the fundamentals and clinical applications of microbiology and immunology and the properties, pathogenesis, and control of bacterial, viral and mycotic infections in people. Three hours lecture. No limit on enrollment. Prerequisite: 403, 441, and 451.

454-2 Clinical Microbiology and Immunology Laboratory. Methods and procedures in the clinical diagnosis of microbiologic and immunologic diseases in people. Four hours

laboratory. Enrollment limited to 12. Prerequisite: 404, 442, and 452, consent of instructor, and 453 or concurrent enrollment.

460-3 Genetics of Bacteria and Viruses Lecture. Genetic mechanisms, mutation, transformation, recombination, transduction, lysogeny, phenotypic mixing, and reactivation phenomena. Three hours lecture. Prerequisite: 301.

461-3 Genetics of Bacteria and Viruses Laboratory. Genetic mechanisms, mutation, transformation, recombination, transduction, lysogeny, phenotypic mixing, and reactivation phenomena. Six hours laboratory. Prerequisite: 460 or concurrent enrollment.

462-3 Fungal Genetics Lecture. Mendelian and molecular genetics of molds and yeasts. Mutant induction, sexual crosses, tetrad analysis, linkage, and mapping. Two hours lecture. Prerequisite: Biology 305.

463-2 Fungal Genetics Laboratory. Four hours laboratory. Prerequisite: 462 or concurrent enrollment, and consent of instructor.

490-1 to 3 Undergraduate Research Participation. Investigation of a problem either individually or as part of a research group under the direction of a member of the faculty. Prerequisite: 3.0 grade point average in microbiology and consent of instructor.

500-1 Seminar.

502-3 Evolution of Genetic Thought

504-3 Methods of Microbiological Research.

505-1 Special Topics in Microbiology.

511-1 to 7 Research.

520-2 Advanced Microbial Physiology and Control Mechanisms.

528-1 to 3 Readings in Microbiology.

540-3 Advanced Virology.

541-3 Advanced Virology Laboratory.

542-3 Molecular Virology.

543-3 Molecular Virology Laboratory.

551-3 Advanced Immunology.

562-2 Molecular Genetics.

564-2 Bacterial Sexuality.

599-1 to 3 Thesis.

600-1 to 12 Dissertation.

Mining Engineering (Major [Graduate Only] Courses)

Courses

401-1 Introduction to Mining Engineering A broad treatment of the importance of coal and its products in the modern society. Analyzing the markets for coal and its products. Mining operations and related environmental impacts. Prerequisite: graduate or senior standing in engineering disciplines.

410-3 Mine Extraction Systems. Study of coal property evaluation. Surface and underground mining methods. Mining production and its ancillary systems and subsystems. Prerequisite: graduate or senior standing in engineering disciplines.

411-2 Mine Machinery. Analysis and design of underground and surface mining machinery. Equipment and parts selection. System development. Preventive maintenance. Prerequisite: 410.

413-2 Mine Power Systems. Study of electrical, hydraulic, and pneumatic mine power systems. Selection and design of power systems and their components. Related economics and decision making criteria. Prerequisite: 410, and Engineering 385, or equivalent, instructors consent.

415-2 Surface Mining and Land Reclamation. Study of surface mining methods and their elements. Surface mine design. Land reclamation. Economics of mining and reclamation. Prerequisite: graduate or senior standing in engineering disciplines.

420-2 Coal Preparation and Waste Treatment. Impurities in coal and their impact on the market. Impurities liberation and separation methods. Product preparation. Coal washability characteristics. Flow sheet development. Recovery of coal from tailings, slurry ponds and mine waste. Economics of coal preparation. Prerequisite: graduate or senior standing in engineering disciplines.

421-2 Coal Conversion and Combustion Processes. Overview of major present-day and proposed processes converting coal to other energy forms (gaseous or liquid fuels, coke, steam, electricity, etc.). The physical and chemical properties of coal and the chemical reaction relationships which affect the conversion process paths. Process design aspects of coal-fed boilers, coal coking ovens, and coal gasification/liquefaction reactor systems. Environmental and cost considerations related to the construction of coal conversion plants. Prerequisite: graduate or senior standing in scientific discipline.

510-2 Strata Control and Rock Mechanics.

511-2 Advanced Strata Control.
520-2 Mine Ventilation Design and Environmental Control.
521-2 Material Handling and Mine Drainage.
530-3 Mine Management.
550-1 to 3 Internship.
580-1 to 2 Seminar.
592-1 to 5 Special Investigations.
599-1 to 6 Thesis.

Molecular Science (Major [Doctoral Only], Courses)

Courses

400-10 (5, 5) The Mathematical and Physical Basis of Molecular Science. A survey of topics in mathematics, physics, and chemistry relevant to molecular science. (a) Topics are drawn from classical mechanics, thermodynamics, and statistical thermodynamics. (b) Topics are drawn from classical electromagnetic theory, chemical kinetics, and quantum mechanics. The mathematics appropriate and necessary to the discussion of these topics is presented in an integrated manner throughout the course. Prerequisite: consent of the molecular science program chairman.
500-5 The Biological Basis of Molecular Science.
592-1 Colloquy in Molecular Science.
597-2 to 30 Selected Topics in Molecular Science.
598-2 to 16 Special Projects in Molecular Science.
600-1 to 36 (1 to 16 per semester) Dissertation.

Mortuary Science and Funeral Service (Program, Major, Courses)

This program is the only mortuary science program offered in a public university in Illinois. The program was developed in response to a request from the Illinois Funeral Directors Association. The Association's members recognized the need for a school of higher education to educate funeral service practitioners. The program is fully accredited by the American Board of Funeral Service Education and the Illinois Department of Registration and Education.

This program also is designed to accommodate students transferring from community colleges at the end of the first year. Enrollment of beginning students is limited by size of faculty and physical facilities with new students admitted only in the fall semester. Additional application information is required other than that required for admission to the University.

The program requires two academic years of study and one summer of internship in a funeral home for completion. In addition to technical courses which prepare the student for the profession, the student will take a number of courses which will lead to an understanding of the psychological, sociological, and theological implications of death.

Faculty members are licensed funeral directors and embalmers with experience in the profession. Professional courses are offered in the program's own preparation room-laboratory. Graduates of the program will have satisfied requirements for the trainee license and will be eligible to write the State and/or National Board examinations and to begin serving their traineeship. Career opportunities are excellent and to date, all graduates who desired placement have been employed.

Persons active in the profession serve on the program's advisory committee. Current members are: Joseph McCracken, McCracken Funeral Home, Pana; Hugh Kenny, Chicago Funeral Directors Services Association; Richard Yurs, Yurs Funeral Home, St. Charles; James Couch, Couch Funeral Home, Chicago; William Froelich, Jr., Froelich Memorial Home, Gridley; Daniel A. Justen, Peter M. Justen and Son Funeral Home, McHenry; Joseph W. Schilling, Schilling Funeral Home, Mattoon; William Huffman, Huffman Funeral Home, Carbondale; Charles Ran-

kin, Rankin Funeral Home, Salem; James R. Wilson, Wilson Funeral Home, Marion; and Robert W. Ninker, executive secretary, Illinois Funeral Directors Association, Springfield.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Mortuary Science and Funeral Service

GSA 115	3
GSB 202	3
GSD 101	3
Accounting 110	3
Secretarial and Office Specialties 208	3
School of Technical Careers 101 or 102, 115a, b, 153a	9
Mortuary Science 101, 102, 108, 225a, b, 230, 250a, b, 255, 256, 257, 375a, b, 380	51
Elective (in Health Education)	2
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Total	77

Courses

101-3 Orientation to Funeral Service. Students will trace the history of funeral services from ancient times through modern practices with emphasis on the development of funeral practices in the United States. Students study the customs of various cultures throughout the world including customs in the United States. They will demonstrate a knowledge of funeral service organizations and will discuss topical areas of current discussion. Lecture three hours.

102-4.5 Restorative Art. Students will study the anatomical structure of the cranial and facial areas of the human skull. They will describe the facial proportions and markings. The student studies the methods and techniques used to restore facial features that might have been destroyed by traumatic and pathological conditions. They will demonstrate a knowledge of color and cosmetology theory. Laboratory assignments will include modeling, applying cosmetics, making hair restorations and casting facial features. Lecture three hours. Laboratory three hours.

108-3 Funeral Service Psychology. Designed to acquaint the student with an overview of psychology in funeral service as applied to death, grief, and mourning. Students will examine interpersonal and public relations as they affect the funeral service practitioner in relationship with the public served. Lecture three hours.

225-9 (4.5, 4.5) Embalming Theory and Practice. (a) The student will be introduced to techniques of embalming through a study of the body, sanitation, embalming agents, instruments, and methods of embalming. The student studies the theory, practices, and techniques of sanitation; and restoration and preservation of deceased human remains. Laboratory experience will consist of embalming deceased remains and of other related activities. Lecture three hours. Laboratory three hours. (b) The student will study the anatomy of the circulatory system, the autopsied case, the cavity embalming, the contents of the thoracic and abdominal cavities, and the treatment of "special cases" that might be encountered in the embalming process. Laboratory experience is a continuation of 225a. Lecture three hours. Laboratory three hours. Must be taken in a,b sequence.

230-4 Mortuary Anatomy. The student will study the structure and function of the human body as a whole including: general organization, structural organization, tissues, skeletal system, nervous system, circulatory system, physiology of circulation, glands, respiratory system, digestive system, genito-urinary system, integument, and special senses. Lecture four hours.

250-6 (3, 3) Mortuary Management. (a) The student will examine the problems involved in the practice of funeral management. Included are the funeral director's responsibilities from the first call until the completion of the last service rendered the family, funeral home operation and records, ethics and professional regulations. Lecture three hours. (b) The student will trace the laws and regulations that govern the practice of funeral service, and study the Illinois License Law, Vital Statistics Act, transportation rules, and Social Security regulations. The funeral directors' responsibilities and relationships to local boards of health and the State Department of Public Health are emphasized. Lecture three hours.

255-2 Embalming Chemistry. The student will study the chemistry of the body, sanita-

tion, toxicology, chemical change in deceased human remains, disinfection, and embalming fluids. Laboratory experiments will complement lecture material. Lecture three hours. Laboratory two hours. Eight weeks. Prerequisite: introductory chemistry course.

256-4.5 Introductory Microbiology. The student will survey microbiology: morphology, structure, physiology, populations of microbial organisms, microbial destruction, immunology, and pathogenic agents. Lecture three hours. Laboratory three hours.

257-3 Pathology. Students will be introduced to the study of the cause, course, and effects of diseases upon the human body with stress on ways in which tissue changes affect the embalming process. Lecture three hours. Prerequisite: 230 or equivalent.

375-10 (5, 5) Funeral Service Internship. (a) Students will spend one summer in a university approved funeral home learning in actual practice situations: functional organization, procedures, and policies of the establishment. They will perform duties and services as assigned by preceptor and coordinator to include surveillance of and participation in the execution of total services rendered to a family. (b) They will be given an opportunity to learn embalming techniques by active participation in the preparation room. Service reports and assignments are required to be completed by the student. Prerequisite: all other requirements of the Mortuary Science curriculum must be met. Must take a and b concurrently.

380-2 Funeral Service Seminar. Formal discussions are held to evaluate the experience and progress of the participants in the internship program. Preparations are made for the board examinations. Prerequisite: concurrent enrollment in 375. Mandatory Pass/Fail.

Museum Studies (Minor)

Museum studies is available as an undergraduate interdisciplinary minor. The purpose of the minor is to introduce students to various aspects of museum work, to acquaint them with the opportunities and problems faced by museums and museum personnel, and to create career opportunities for students who might seek employment in a museum. Emphasis will be placed on actual work situations in such diverse museum functions as exhibition, curation, cataloging, acquisition, and administration.

Minor

The museum studies minor consists of 18 hours, with 12 hours of required core courses and 6 hours of electives. Within the core courses listed below students must take six hours offered by one department and six hours from at least two other departments. Students may then elect six hours from either the other core courses or electives listed below.

Core Courses: Anthropology 450a and 450b; Art 447; Geology 445; History 497 and 498.

Electives: Anthropology 404, 405, and 460; Art 207 and 499; Business Administration 440; Geology 440; History 490 and 493.

Music (School, Major, Courses)

The requirements for entrance and for graduation as set forth in this bulletin are in accordance with the published regulations of the National Association of Schools of Music, of which this school of music is a member.

Students who wish to major in music are assumed to have acquired extensive experience in performing with school groups and/or as a soloist, basic music reading ability, and a strong sensitivity to music and a desire to communicate it to others. Those without such a background will have to complete additional preparation, which may extend the time to graduation beyond four academic years. Music credits earned at other accredited institutions will apply toward requirements, but the transferring student remains subject to evaluation by the appropriate music faculty for proper placement in the music curriculum.

All students in the Bachelor of Music degree program must maintain satisfac-

tory membership in one of the following ensembles: Music 011, 013, 014, 017, 020, 021, or 022 every term in residence. All junior and senior students with a major or minor in music must maintain satisfactory membership every session in one of the above ensembles, or in one of the following: Music 341, 346, or 414. Students are exempt from this requirement during the session of student teaching. Students also may elect additional large or small ensembles, not to exceed three in any one session.

Each student with a major or minor in music must designate a principal applied field and complete the credits specified within the selected specialization. Changes in the principal applied field are permissible so long as the student accumulates the required credit total and meets the required level of proficiency.

Credits in one's principal applied field are based on private lessons with a member of the faculty, weekly participation in Studio Hour (Mondays, at 10:00 a.m.), and recorded attendance each semester at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant. Students who fail to fulfill either the Studio Hour or attendance at campus recitals or concerts requirement will receive a grade of Incomplete, which can be removed only by making up the deficiency during the ensuing semester. A student who wishes to attempt the performance specialization in applied music must have prior approval of the appropriate faculty jury, and thereafter enrolls for and receives two lessons per week for 4 credits per semester.

A student may elect private instruction in a second field or fields, but this is for one credit per semester since the studio hour and recital attendance requirements pertain only to the principal applied field.

Students not majoring or minoring in music may elect private applied music instruction if they can exhibit sufficient ability, they are participating simultaneously in one of the University performing groups, and faculty loads will allow. Registration is at one credit per semester, with no studio hour or recital attendance requirement. Those wishing such instruction should arrange for an interview and audition with the appropriate instructor.

Students specializing in music education should apply for admission to the Teacher Education Program as soon as they have accumulated 30 semester hours of credit. After being admitted, they must complete a series of specific requirements in order to qualify for student teaching and for the Illinois teaching certificate. Additional information is given under Education, Professional Education Experiences, and Curriculum, Instruction, and Media in this chapter.

Financial Information

Special grants and awards are available to students enrolled in the School of Music who are qualified and in need of financial assistance. Opportunities for employment in the student work program are excellent. In addition, there are scholarships (tuition awards) and loan programs available through the Office of Student Work and Financial Assistance.

Beyond the general university tuition and fees, there are no additional charges for music lessons or use of practice rooms, nor for rental of instruments used in classes or performing groups; however, the student is responsible for purchase of his own textbooks, solo literature, and incidental supplies for music lessons and classes. Such costs normally range from \$20 to \$50 per semester.

Bachelor of Music Degree, College of Communications and Fine Arts

General Studies Requirements	45
Including GSA 361 and Music 102 and 105a as GSC substitutes	
Requirements for Major in Music	75
Theory: Music 104a,b; 105a,b; 204; 205; 207; 321; 322	(3) ¹ + 16

History-Literature: Music 102; 357a,b	(2) ¹ + 6
Major performing ensembles (8 semester)	8 ²
Partial Recital: Music 398	1
Beginning Piano: Music 030 (or waiver by examination)	4 ³
Specialization (see below)	40
<i>Total</i>	120

MUSIC MAJOR—PERFORMANCE SPECIALIZATION, INSTRUMENTAL (STANDARD ORCHESTRAL AND BAND INSTRUMENTS, AND GUITAR)

Music 140-440, principal field, 8 semesters	28
Music 498	2
Music 407, 421, 461, or any of 470 series	6
Approved music electives	4
	<hr/> 40

MUSIC MAJOR—PERFORMANCE SPECIALIZATION, KEYBOARD (PIANO, ORGAN, AND HARPSICHORD)

Music 030 not required ³	
Music 140-440, principal field, 8 semesters	28
Music 498	2
Music 461	3
Music 407, 421, or any of 470 series	4
Music 341	2
Approved music electives	5
	<hr/> 44

MUSIC MAJOR—PERFORMANCE SPECIALIZATION, VOICE

Music 140-440, principal field, 8 semesters	28
Music 498	2
Music 407, 421, 461, or any of 470 series	4
Approved foreign language, 2 semesters	(4) ¹ + 4
Music 363	2
	<hr/> 40

MUSIC MAJOR—MUSIC HISTORY-LITERATURE SPECIALIZATION

Music 140-340, principal field, 6 semesters	12
Music 407, 421	4
Music 472, 473, 474, or 499	2
Music 475, 476, or 477	6
Approved foreign language, 3 semesters	(4) ¹ + 8
Approved electives (suggest Music 410, 414, 482, and fourth semester of foreign language)	8
	<hr/> 40

MUSIC MAJOR—MUSIC THEORY-COMPOSITION SPECIALIZATION

Music 140-340, principal field, 6 semesters	12
Music 407, 421	4
Music 280, 380	8

Music 480, 481, or 499	4
Music 470 series	5
Approved music electives, 300 level or above	7
	<hr/>
	40

MUSIC MAJOR—MUSIC BUSINESS SPECIALIZATION

<i>General Studies Requirements</i>	45
Including GSA 361 and Music 102 and 105a as GSC substitutes	
<i>Requirements for Major in Music with Music Business Specialization</i>	75
Accounting 221, 222	6
Administrative Sciences 304	3
Economics 215	3
Finance 271	3
Marketing 304, 363, 401, 438	12
Music 104a, b, 105a, b	8
Music 305	2
Music 324	1
Music 374, 375	6
Music 420	1-2
Music 040-240, 4 semesters	4-8
Music 030, 2 semesters (or waiver by examination)	2
Music 031 (or waiver by examination)	1
Six semesters chosen from 011, 013, 014, 017, 020, 021, 022	6
Music 032-1, 033-1, 034-1, 035-1, 036-1	5
Music electives	7-12
Electives selected from GSA 101, GSC 371, Music 036, Music 373, Physics 325, 355, or intern-cooperative training.	

<i>Total</i>	120
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**Bachelor of Music Degree, College of Communications and Fine Arts or
Bachelor of Music Education Degree, College of Education**

MUSIC MAJOR—MUSIC EDUCATION SPECIALIZATION⁴

<i>General Studies Requirements</i>	45
Including GSA 361; GSB 202, GSB 212 or 300, and Music 102 and 105a as GSC substitutes	
<i>Requirements for Major in Music</i>	57
Theory: Music 104a,b; 105a,b; 204, 205; 207; 321; 322	(3) ¹ + 16
History-Literature: Music 102, 357a,b	(2) ¹ + 6
Major performing ensembles, 7 semesters ²	7
Music 140-340, principal field, 6 semesters	12
Music 398	1
Music 031 (or waiver by examination)	1
Music 304	2
Music education specialization	12
Music 030 ³	2
Music 032, 033, 034, 035	4
Music 305, 318, 324	6
Or	
Music 030	4
Music 317, 325	4
Music 306 or 032-036 series	2

Music 363	2
Professional Education Requirements	24
Total	126

Bachelor of Arts Degree, College of Liberal Arts

This program provides a strong cultural background in music, as well as the necessary basis for various part-time and musically related careers. Additional study is ordinarily necessary to qualify for regular full-time music positions.

Required courses are Music 102, 104a,b, 105a,b, 204, 205, 207, 357a,b; four semesters of 140 and 240, eight hours; performing ensembles, four semesters, four hours; and music electives, six hours for a total of 40 hours. Students must comply with the studio hour and recital attendance requirements listed under general requirements in music. GSC foreign language does not satisfy the GSC requirements in College of Liberal Arts.

Minor

The minor in music includes Music 102, 030a,b, 104a,b, 105a,b, 357a,b; two semesters of performing ensembles, two hours; and two semesters of 040 or 140, four hours for a total of 24 credits. Students must comply with the studio hour and recital requirements listed above.

¹GSC substitutions.
²Exception for performing ensembles in music education specialization.
³Exceptions for Music 030 (and consequent credit hour adjustment) in keyboard performance and instrumental music education specializations.
⁴These programs meet the requirements for the Illinois Special Teaching Certificate in music.

Courses

- 011-1 to 8 (1 or 2, 1 or 2, 1 or 2) Marching Salukis.** Fall semester only. Open to all students with experience in bands. Performs at all home football games, and one or two away. Counts as a "major ensemble," one of which must be taken each semester by resident music majors.
- 012-1 to 4 (1, 1, 1, 1) Laboratory Band.** Spring semester only. Open to all students with experience in bands. Opportunity to extend experience on one's secondary instrument, if desired. Performs at all home basketball games and functions as laboratory group for conducting students.
- 013-1 to 16 (1 or 2 per semester) Symphonic Band.** Open to all students with experience in bands. Performs standard band literature. Two or three concerts per year. Counts as "major ensemble," one of which must be taken each semester by resident music majors.
- 014-1 to 16 (1 or 2 per semester) Concert Wind Ensemble.** A select group which performs advanced contemporary literature. Three concerts and tour per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration.
- 015-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Jazz Ensemble.** For students experienced with popular literature. Concerts and tours when feasible. Prerequisite: audition prior to first registration.
- 016-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Brass and Percussion Ensemble.** A select group, performing literature scored for this instrumentation. Two or three concerts per year and tour as feasible. Prerequisite: audition prior to first registration.
- 017-1 to 16 (1 or 2 per semester) Symphony.** Open to all experienced string, woodwind, brass, and percussion players. Plays standard and advanced orchestral literature, performs three or four concerts per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration.
- 018-1 to 4 (1, 1, 1, 1) String Orchestra.** Fall semester only. Open to all string players concurrently enrolled in Symphony. Rehearses symphony parts and string orchestra literature.
- 019-1 to 4 (1, 1, 1, 1) Laboratory Orchestra.** Spring semester only. Open to all experienced string, woodwind, brass, and percussion players with consent of instructor. Performs opera and orchestral-choral works.
- 020-1 to 16 (1 or 2 per semester) University Chorus.** Open to all students who desire to sing. Study and performance of major choral-orchestral literature. Two concerts per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. No audition required.
- 021-1 to 16 (1 or 2 per semester) S.I.U. Chorale.** Open to all experienced singers. Emphasis on advanced contemporary literature. Three or four concerts per year and tours as

feasible. Counts as a "major ensemble," one of which must be taken each semester by resident music majors.

022-1 to 16 (1 or 2 per semester) University Choir. A select group which performs advanced choral literature of all eras. Three or four concerts per year and tours as feasible. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration, and each succeeding fall.

023-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Southern Singers. Open to all experienced singers. Emphasis on light, popular literature. Two or three appearances per year.

024-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Male Glee Club. Open to all male students who desire to sing. Serious and lighter glee club material. Frequent appearances on and off campus.

025-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Women's Choral Ensemble. Open to all women who desire to sing. Two or three appearances per year.

030-4 (1, 1, 1, 1) Piano Class. (a) Level 1, (b) Level 2, (c) Level 3, (d) Level 4. Designed to develop functional command of basic keyboard skills needed in the further study of music and the teaching of music. Take in sequence unless assigned advanced placement by instructor. Prerequisite: major or minor in music, elementary education, early childhood education, or consent of instructor.

031-2 (1, 1) Voice Class. (a) Level 1, (b) Level 2. Designed to develop functional command of basic vocal skills needed in teaching music. Prerequisite: consent of instructor.

032-3 (1, 1, 1) String Techniques Class. (a) Upper Strings; (b) Lower Strings; (c) Mixed Strings. Designed to develop essential techniques and principles which can be used in teaching young string pupils. Students begin with one instrument and shift to another at mid-term. Take a, b, or c in any order. Prerequisite: music major or minor.

033-4 (1, 1, 1, 1) Woodwind Techniques Class. (a) Flute and Single Reeds, (b) Double Reeds, (c) Mixed Woodwinds, (d) Recorder. Designed to develop essential techniques and principles which can be used in teaching young woodwind pupils. Students begin on one instrument and shift to another at mid-term, except for (d). Take a, b, c, or d in any order. Prerequisite: music major or minor or consent of instructor.

034-3 (1, 1, 1) Brass Techniques Class. (a) Upper Brass; (b) Lower Brass; (c) Mixed Brass. Designed to develop essential techniques and principles which can be employed in teaching young brass pupils. Students begin with one instrument and shift to another at midterm. Take a, b, or c in any order. Prerequisite: music major or minor.

035-1 Percussion Techniques Class. Designed to develop basic techniques and principles which can be employed in teaching young percussion pupils. Prerequisite: music major or minor.

036-2 (1, 1) Guitar Class. (a) Level 1, (b) Level 2. Designed to develop basic techniques and principles which can be employed in teaching music. Prerequisite: major or minor in music, elementary education, or early childhood education, or consent of instructor.

040, 140, 240, 340, 440, 540-1, 2, or 4 Applied Music. Offered at six levels in the areas listed below. May be repeated for credit as long as passing grade is maintained. Student must be concurrently enrolled in one of the performing groups. Prerequisite for 040: satisfactory completion of beginning class instruction offered in that area, or the equivalent. Prerequisite for 140: three or more years of prior study or performing experience, or two semesters of C or better at 040 level. Prerequisite for 240, 340, 440, 540: two semesters of C or better at previous level, or consent of applied jury. Music majors and minors enroll for two credits on their principal instrument, taking one half-hour private lesson and studio class, Mondays at 10:00. Those with prior approval by their applied jury for the specialization in performance enroll for four credits, taking two half-hour private lessons and the studio class each week. Non-music majors or minors, and those music majors taking a second instrument, enroll for one credit, taking one private or class lesson per week. Six hours of individual practice per week required for each lesson. For shorter sessions, credit is reduced or lesson time is increased proportionately.

a. Flute
b. Oboe
c. Clarinet
d. Bassoon
e. Saxophone
f. Horn
g. Trumpet

h. Trombone
i. Baritone
j. Tuba
k. Percussion
l. Violin
m. Viola
n. Cello

o. String Bass
p. Voice
q. Piano
r. Organ
s. Harpsichord
t. Guitar
u. Recorder

101-3 Music Fundamentals. Rudiments of music for those with little or no musical background. One lecture and one piano laboratory session per week. Provides basic music vocabulary and keyboard competency for 300, 301, 302, and 303.

102-2 Survey of Music Literature. Characteristic forms and styles. Analysis and listening. Examples from the leading composers of each era. Prerequisite: music major or minor.

104-2 (1, 1) Aural Skills. A laboratory course designed to complement 105a and b. Practice in recognition and singing of basic pitch and rhythm materials, and their realization in standard musical notation. For those planning a major or minor in music. Take a and b in sequence, or, with prior consent of instructor, concurrently.

105-6 (3, 3) Basic Harmony. Study of traditional diatonic tonal materials and standard

notational practice. Includes keyboard skills. For those with performing experience and planning a major or minor in music. Take a and b in sequence. Prerequisite: concurrent registration in 104 and 030, or equivalent aural and keyboard skill.

107-1 Applied Harmony for Fretted Instruments. Application of basic harmonic functions to the fretted instruments including guitar. Prerequisite: concurrent enrollment in guitar (140-540t) or consent of instructor.

140-1, 2, or 4 Applied Music. (See 040.)

204-1 Advanced Aural Skills. Continuation of 104. Designed to complement 205. Prerequisite: 104b.

205-3 Advanced Harmony. Study of chromatic tonal materials, including keyboard skills. Prerequisite: 104b and 105b, and concurrent registration in 204.

207-2 Contrapuntal Techniques. Basic contrapuntal principles and skills, especially as applied to 18th and 19th century styles. Extensive writing practice, and analysis of stylistic models. Introduction to major contrapuntal forms. Prerequisite: 205 and 204, or take 204 concurrently.

240-1, 2, or 4 Applied Music. (See 040.)

280-2 to 4 (2, 2) Beginning Composition. Application of contemporary compositional techniques. Prerequisite: 105b or consent of instructor.

300-2 Teaching Music in the Primary Grades. For non-music majors only, who may be expected to teach music in grades K-3. Methods and materials for instruction. Prerequisite: 101 or equivalent.

301-2 Teaching Music in the Intermediate Grades. For non-music majors only, who may be expected to teach music in grades 4-6. Methods and materials for instruction. Prerequisite: 101 or equivalent.

302-2 Music in Special Education. For non-music majors only, with an interest in pursuing a career in special education. Prerequisite: 101 or equivalent.

303-3 Music for Pre-Schoolers. Methods and materials for teaching music to pre-school children. Recommended for majors in the Department of Child and Family and in early childhood education. Prerequisite: 101 or equivalent.

304-2 The General Music Program. A survey of problems and methods in teaching music in the schools, with scheduled observations of school music programs in operation. Special attention to the teaching of comprehensive musicianship through the general music program in the junior high school. Prerequisite: admission to teacher education program.

305-2 Instrumental Music in the Schools. Administration of the school instrumental music program. Emphasis upon teaching instruments and the management and instruction of instrumental organizations. Prerequisite: 304.

306-2 Music Specialist in the Elementary Schools. Principles and methods employed in supervising and teaching the elementary school music program. Designed for music majors and minors. Prerequisite: 304.

317-3 Choral Conducting and Methods. Score reading, baton techniques, and rehearsal techniques, organization and management problems of school choral groups. Prerequisite: music major or minor and junior standing.

318-3 Instrumental Conducting. Score reading, baton techniques, and rehearsal management. Supervised application in ensemble. Prerequisite: music major or minor and junior standing.

321-2 Form and Analysis. Comprehensive study of harmonic and formal structures and typical stylistic traits of 18th and 19th century music. Prerequisite: 204 and 207.

322-3 Principles of 20th Century Music. Comprehensive study of harmonic techniques and other stylistic traits of major 20th century idioms. Prerequisite: 321.

324-1 Instrumental Arranging. Practice in scoring of transcriptions, arrangements, and original compositions for standard instrumental groups. Prerequisite: 205.

325-1 Choral Arranging. Practice in scoring arrangements and/or original compositions for choral groups. Prerequisite: 205.

331-1 Jazz Improvisation. Ear training, phrasing in extemporaneous playing, use of chord symbols and chord progressions, special effects peculiar to jazz playing and styles of playing. Prerequisite: 205.

340-1, 2, or 4 Applied Music. (See 040.)

341-1 to 8 (1 or 2 per semester) Accompanying Laboratory. Experience, under supervision, in accompanying soloists and groups. Counts as a "major ensemble" for juniors and seniors.

346-1 to 16 (1 or 2 per semester) Opera Workshop. Open to all experienced singers and stage technicians. Performs one major work and two or more excerpt programs per year. Normal registration is for two credits; four credits with permission for those with major roles; eight credits for full-time summer workshop. Counts as a "major ensemble" for juniors and seniors.

347-1 to 12 Music Theater Workshop. For experienced singers, actors, dancers, and instrumentalists. Normally offered during summer as a full-time course, for eight credits, or

one credit per show for the orchestral players. Three or four musicals are rehearsed and presented. Prerequisite: audition.

357-6 (3, 3) Music History. Study of musical examples and techniques evolving from the ancient period to the present. May take a or b in either order. Prerequisite: 102 and junior standing.

363-2 (1, 1) Pronunciation and Diction for Singers. (a) English and French, (b) German and Italian. Establishment of proper pronunciation as applied to vocal literature. Prerequisite: one or more semesters of private or class voice instruction. Elective Pass/Fail.

365-1 to 48 Chamber Music. Groups of two to sixteen performers as organized and sponsored by individual faculty members. Includes duo-piano teams, and piano in combination with other performers. Regular weekly rehearsals of appropriate music and public performance as feasible.

a. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Vocal.**

b. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-String.**

c. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Woodwind.**

d. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Brass.**

e. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Percussion.**

f. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Keyboards.**

370-2 American Folk Music. American folk music from its foreign heritage to its current manifestations.

372-3 The Music of Black Americans. (Same as Black American Studies 362.) The study of the music created and produced by black people in the United States. Content ranges from work songs and spirituals through contemporary classical music. Although jazz is not ignored, primary focus is on other styles and genres. Some emphasis upon the environmental forces which shaped the music. Historically oriented.

373-3 Rock and Pop Music. Study of "rock" and other popular American music. Evolution of both black and white folk music is shown. Rock is studied as the merging of aspects of these two folk mainstreams. Major figures in rock are studied. Lectures, "live" and recorded demonstrations, films, and individual projects will be used.

374-3 Music Merchandising I. A study and investigation of domestic and international copyright protection, the publishing and distribution of music, and investigation of recorded music. Prerequisite: sophomore standing and permission of instructor.

375-3 Music Merchandising II. Continuation of 374, emphasizing continued study of the record industry, performed music and performance rights, musical instruments manufacture, and an investigation of wholesale and retail procedures. Prerequisite: 374.

380-2 to 4 (2, 2) Intermediate Composition. Continuation of 280. Original composition in the smaller forms for piano, voice, string quartet, and other small combinations. Prerequisite: 280-4.

398-1 to 2 (1, 1) Partial Recital. Preparation and presentation of a partial recital in any applied field. Prerequisite: prior or concurrent registration in 340 and approval of applied jury.

399-5 (1, 1, 1, 1, 1) Graduate Preparatory Seminar. (a) Music analysis, (b) Aural techniques, (c) Pre-Baroque, (d) Baroque and Classical, (e) Romantic and Modern. Designed to supply understanding and skills where deficiencies have been shown by the graduate proficiency examinations in music. Part or all may be taken in any sequence. Prerequisite: prior assignment by graduate committee in music.

400-1 to 2 (1, 1) Performance Techniques. Individual instruction in any secondary applied field. Designed to provide added depth of preparation for teaching instrumental and vocal music. Prerequisite: completion of 340 level or the equivalent in some field of applied music.

407-2 Modal Counterpoint. Study of Renaissance contrapuntal techniques. Extensive writing practice, and analysis of stylistic models. Prerequisite: 207.

410-6 (3, 3) Ethnomusicology. (Same as Anthropology 410h,i.) (h) Oceania, Asia, and Africa, (i) Middle East, Europe, and the New World.

414-1 to 8 (1 to 2 per semester) Collegium Musicum. For experienced singers and instrumentalists. Emphasis upon practical study of historical music literature of the Medieval, Renaissance, and Baroque eras. Counts as a "major ensemble" for juniors and seniors.

420-1 to 2 (1, 1) Instrument Repair. A shop-laboratory course dealing with the selection, tuning, adjustment, maintenance, and repair of musical instruments.

421-2 Advanced Analysis. Structure, form, and design in music as the coherent organization of all of its factors. Analysis of works chosen from a variety of styles and genres. Prerequisite: 321.

430-1 Jazz Arranging. Methods of scoring for popular groups. Practice in scoring arrangements and/or original compositions for jazz ensembles. Prerequisite: 324 or prior consent of instructor.

440-1, 2, or 4 Applied Music. See Music 040.)

447-4 (2, 2) Electronic Music. (a) Introduction to classical studio equipment and techniques; use of voltage controlled equipment. Individual laboratory experience available. (b) Emphasis upon creative projects, more sophisticated sound experimentation, and analysis. Enrollment limited. Must be taken in a,b sequence. Prerequisite: 280 or GSA 361 or consent of instructor.

453-2 to 4 (2 per semester) Advanced Topics in Choral Music. Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. Designed for experienced teachers and advanced students.

454-2 to 4 (2 per semester) Advanced Topics in Instrumental Music. Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. Designed for experienced teachers and advanced students.

455-2 to 4 (2 per semester) Advanced Topics in Elementary School Music. Practicum in the selection and use of materials for the elementary school program. Study of techniques for achieving balanced musical growth. Designed for experienced teachers and advanced students.

456-4 (2, 2) Music for Exceptional Children. (Same as Special Education 456.) (a) Theories and techniques for therapeutic and recreational use of music with physically and mentally handicapped children. Includes keyboard, autoharp, guitar, and tuned and untuned classroom instruments. (b) Applications for the gifted, emotionally disturbed, and culturally disadvantaged child. Take in sequence. Prerequisite: 302 or prior consent of instructor.

460-3 Music Aesthetics and Appreciation. The significance of music for people. Critical theories in the writings of philosophers of music and art from Plato through Dewey and Cage are related to principles and methods for communicating an understanding of music in schools and in society.

461-3 Applied Music Pedagogy. Specialized problems and techniques employed in studio teaching of any particular field of musical performance. Study of music literature appropriate for the various levels of performance. Opportunity, as feasible, for supervised instruction of pupils. Meets with appropriate instructor, individually or in groups.

468-2 to 4 (2, 2) Music Productions. Practicum in the techniques for staging operas and musicals.

472-2 Chamber Music Literature. A study of literature for the principal types of chamber music groups.

475-3 Baroque Music. The development of vocal and instrumental music in the period 1600-1750, from Monteverdi to Bach and Handel. Oratorio and Cantata, the influence of opera, sonata, suite, and concerto. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.

476-3 Classical Music. Development of the sonata, symphony, concerto, and chamber music in the 18th and early 19th centuries, with emphasis on the music of Haydn, Mozart, and Beethoven. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.

477-3 Romantic Music. Development of the symphony and sonata forms, chamber music, and vocal music in the 19th and early 20th centuries. Rise of nationalism and impressionism. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.

479-2 to 4 (2 per topic) Solo Performance Literature. Topics presented will depend upon the needs of students and upon instructors scheduled. Areas: (a) piano literature, including an introductory study of harpsichord music; (b) organ literature, in relation to the history of the instrument; (c) song literature; (d) guitar and lute literature; (e) solo string literature; (f) solo wind literature.

480-2 to 4 (2, 2) Advanced Composition. Original composition involving the larger media. Individual instruction. Prerequisite: 380-4.

481-1 to 4 Readings in Music Theory. Assigned readings and reporting of materials pertaining to a particular phase of music theory in historical perspective. Approximately three hour's preparation per week per credit (adjusted for shorter sessions). Prerequisite: 321 and 322 or prior consent of instructor.

482-1 to 4 Readings in Music History and Literature. Assigned readings and reporting of materials pertaining to a particular phase of history or literature. Approximately three hours preparation per week per credit. Prerequisite: 357a and b, or prior consent of instructor.

483-1 to 4 Readings in Music Education. Assigned readings and reporting of materials pertaining to a particular phase of music education. Approximately three hours preparation per week per credit (adjusted for shorter sessions).

498-2 to 4 (2, 2) Recital. Preparation and presentation of a full solo recital in any applied field. Prerequisite: prior or concurrent registration in 440 and approval of applied jury.

499-1 to 8 Independent Study. Original investigation of selected problems in music and music education with faculty guidance. Project planned to occupy approximately three hours preparation per week per credit (adjusted for shorter sessions). Prerequisite: prior consent of selected instructor.

501-3 Music Bibliography and Research.
502-4 (2, 2) Analytic Techniques.
503-3 Scientific Evaluation and Research in Music.
509-2 History and Philosophy of Music Education.
535-2 Contemporary Idioms.
540-1, 2, or 4 Applied Music.
545-3 Pedagogy of Music Theory.
550-2 School Music Administration and Supervision.
556-2 to 4 (2, 2) Advanced Conducting.
566-1 to 12 (1 or 2 per semester) Ensemble.
567-1 to 8 Music Theater Workshop.
568-1 to 16 (1 to 8 per semester) Opera Workshop.
570-3 History of Opera.
573-3 Medieval Music.
574-3 Renaissance Music.
578-3 Twentieth Century Music.
579-3 to 6 (3, 3) Seminar in Music History and Literature.
580-2 to 4 (2, 2) Graduate Composition.
595-2 Music Document.
598-4 Graduate Recital.
599-2 to 6 Thesis.

Nursing

(SEE ASSOCIATE DEGREE NURSING)

Nursing (Preprofessional Program)

The Nursing Division of Southern Illinois University at Edwardsville offers an educational program leading to a Bachelor of Science degree with a major in nursing. The curriculum is designed to prepare qualified individuals to function competently as beginning professional nurse practitioners; to participate in providing a broad scope of health care in a variety of settings; to obtain a foundation for continued growth and graduate education. The curriculum assists students in developing the behaviors and abilities necessary to function therapeutically with people while achieving greater self-direction, self-realization, and professional identity in an era characterized by change.

Up to two years of the program may be completed at Southern Illinois University at Carbondale. During the first two years, the student must successfully complete all courses prerequisite to the nursing major. The student must then transfer to Southern Illinois University at Edwardsville. Information concerning these courses is available at the Pre-Major Academic Advisement Center.

All students are strongly urged to seek academic advisement for each semester in attendance. The grade of *C* or above is required in all nursing courses, all science courses, and General Studies Area A.

Occupational Education

(SEE VOCATIONAL EDUCATION STUDIES.)

Philosophy (Department, Major, Courses)

The student electing to major in philosophy should consult the department's director of undergraduate studies, who will then assign an adviser. Prospective students are advised to take at least one philosophy course at the 100 or 200 level.

Bachelor of Arts Degree, College of Liberal Arts

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
<i>Requirements for Major in Philosophy</i>	28
Philosophy 304 and 305	6
At least two of the following: Philosophy 300, 306, 320, 340, 342 ...	6
At least two 400-level philosophy courses	6-8
Philosophy electives to complete 28 hours, 6 of which may be selected from the 100 and 200 level	8-10
<i>Minor</i>	15
<i>Electives</i>	18-24
<i>Total</i>	120

Minor

A minor in philosophy requires 15 hours, 6 of which may be selected from philosophy courses offered at the 100 and 200 level and 6 of which should be selected from the courses listed above for the major. Philosophy 304 and 305 are recommended.¹

Honors

Honors in philosophy will be granted to eligible majors who successfully complete two semesters of Philosophy 397, maintain a 3.25 average in philosophy and a 3.00 overall grade point average, and have their written work in one Undergraduate Philosophy Seminar approved by a faculty committee.

Courses

200-3 Types of Philosophy: An Introduction. Survey of the traditional branches and problems of philosophy, such as religion, metaphysics, epistemology, ethics, political theory, aesthetics, and history. Elective Pass/Fail.

206-3 Philosophies of the Person. A survey and examination of selected theories of human nature, beginning with ancient and medieval philosophies and continuing into modern times with some consideration of scientific and ideological accounts. Elective Pass/Fail.

300-3 Elementary Metaphysics. Presentation of answers to the most general problems of existence. An attempt to unify all scientific approaches to reality through the laying down of common principles. Elective Pass/Fail.

301-3 Philosophy of Religion. (Same as Religious Studies 301.) An analysis of problems in the psychology, metaphysics, and social effects of religion. Among topics discussed are the nature of mystical experience, the existence of God, and problems of suffering, prayer, and immortality. Elective Pass/Fail.

304-3 Ancient Philosophy. Survey of western philosophy from the pre-Socratics, Plato, and Aristotle through the Middle Ages. Elective Pass/Fail.

305-3 Modern Philosophy. A survey of western philosophy from Bacon and Descartes through Kant. Elective Pass/Fail.

306-3 Nineteenth Century Philosophy. Survey of 19th century European philosophy. Topics to be selected from the following: Hegel's philosophy; the subsequent reactions to Hegelianism in the forms of positivism, Marxism, and existentialism; British utilitarianism and idealism; neo-Kentian philosophies; and evolutionist philosophies. Elective Pass/Fail.

311-3 Indian Philosophy. Historical and comparative study of Hinduism, Jainism, and early Buddhism. Elective Pass/Fail.

312-3 Chinese Philosophy. Historical and comparative study of Confucianism, Taoism, and Mahayana Buddhism. Elective Pass/Fail.

320-3 Deductive Logic. Main forms of deductive inference. Emphasis on the use of the symbolism of modern logic to evaluate inferences. Elective Pass/Fail.

340-3 Ethical Theories. Nature of ethics and morality, ethical skepticism, emotivism, ethical relativism, and representative universalistic ethics. Bentham, Mill, Aristotle, Kant, Blanshard, and Brightman. Elective Pass/Fail.

¹Students completing a minor in philosophy for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

342-3 Social Philosophy. Discussion of contemporary institutions designed to achieve socially desirable goals (e.g., guaranteeing equality of opportunity, protecting individual liberties, assuring a fair distribution of wealth, minimizing violent behavior) and the philosophical theories that serve as the foundation for the continued existence or reform or abolition of these institutions (e.g., the theories of Hobbes, Marx, Mill, and Marcuse). Elective Pass/Fail.

355-3 Philosophy of Education. (See Educational Administration and Foundations 354.) Elective Pass/Fail.

371-3 Introduction to Contemporary Phenomenology. Introductory survey of individual thinkers and questions in the contemporary phenomenological tradition: Husserl, Sartre, Merleau-Ponty, Levinas, and Ricoeur. Elective Pass/Fail.

375-3 Philosophical Foundations of Ecology. Study of the conceptual foundations of the ecological or environmental outlook, the differences that may exist between those foundations and other philosophical frameworks, and the possible changes in general patterns of thought that may result from the increasing importance and widening application of ecological sciences. Elective Pass/Fail.

378-3 Introduction to Marxist Theory. An introduction to Marxist historical method and its effects on social theory, politics, aesthetics, literary criticism, psychology, philosophy, and economics. Classical texts from Lukacs to Althusser and examinations of critical questions in the social sciences provide the topics of the course.

389-3 Existential Philosophy. Surveys the two main sources of existentialism, the life philosophies of Kierkegaard and Nietzsche and the phenomenology of Husserl, and introduces the major philosophical themes of representative thinkers: J.P. Sartre, M. Heidegger, G. Marcel, and others. Elective Pass/Fail.

397-8 (4,4) Undergraduate Philosophy Seminar. Small group discussion of topics in philosophy.

400-3 Contemporary Mind. Analysis of thought-patterns and motivations dominating the American mind during the present decade of the 20th Century. Elective Pass/Fail.

415-3 Logic of Social Sciences. (Same as Sociology 415.) Logical and epistemological examination of the social sciences as types of knowledge. Basic problems in philosophy of science with major emphasis upon social science: relationship of theory to fact, nature of induction, nature of causal law, testability, influence of value judgments, etc. Intended for students with considerable maturity in a social science or in philosophy. Elective Pass/Fail.

420-3 Advanced Logic. Study of topics in logical theory and/or formal logic not treated in 320. Prerequisite: 320. Elective Pass/Fail.

425-3 Philosophy of Language. (Same as Speech Communication 465.) Introduction to basic problems in the philosophy of language, including alternative theories of meaning and reference and the relation between meaning and intention. Elective Pass/Fail.

426-3 Introduction to Mathematical Logic. (See Mathematics 426.)

432-4 Philosophy of Mathematics. (Same as Mathematics 432.) Philosophical problems of mathematics. Epistemological issues raised by non-Euclidean geometry. Representative writers on foundations, including nominalists, intuitionists, logicians and formalists. Ontological commitment, conventionalist theories of mathematical truth, logical paradoxes, and alternative set theories; significance of the theorems of Godel and Skolem-Lownheim. Prerequisite: 320 or 15 hours mathematics. Elective Pass/Fail.

435-4 Scientific Method. Critical survey of influential descriptions of scientific method, with emphasis on natural sciences. Topics include statistical and inductive probability, crucial experiments, explanation and prediction, interpretation of scientific terms and sentences, role of reasoning in discovery, and value judgments in research. Elective Pass/Fail.

441-4 Philosophy of Politics. (Same as Political Science 403.) Some of the central problems of modern political life, such as sovereignty, world government, authority and consent, the relations of economics and social studies to political theory. Prerequisite: 340 or GSC 102 or consent of instructor. Elective Pass/Fail.

443-4 Philosophy of History. Classical and contemporary reflections on the nature of history and historical knowledge as the basis for dealing with the humanities. Prerequisite: consent of instructor. Elective Pass/Fail.

446-3 Philosophical Perspectives on Women. Survey of five different views of the relation of the concept of women to the philosophical concept of Human Nature. Elective Pass/Fail.

460-4 Philosophy of Art. The definition of art, its relation to science, culture and morals; the various types of art defined. Familiarity with at least one of the fine arts is assumed. Elective Pass/Fail.

470-6 (3, 3) Greek Philosophy. (a) Plato; (b) Aristotle. Prerequisite: 304 or consent of instructor. Elective Pass/Fail.

471-4 Medieval Philosophy. Prerequisite: 304 or consent of instructor. Elective Pass/Fail.

472-4 The Rationalists. Study of one or more of the following: Descartes, Malebranche, Spinoza, Leibniz, Wolff. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.

473-6 (3, 3) The Empiricists. (a) Locke; (b) Hume. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.

- 474-9 (3, 3, 3) 19th Century Philosophers.** (a) Kant; (b) Hegel; (c) Marx. Prerequisite: 306 or consent of instructor.
- 477-4 Latin American Philosophy.** A survey of philosophic thought in Latin America from colonial times through 19th century positivism and the reactions against it, up to recent trends. Reading of original texts in English translation. Discussions and reports. Elective Pass/Fail.
- 478-4 Latin American Thought.** Elective Pass/Fail.
- 482-3 Recent European Philosophy.** Philosophical trends in Europe from the end of the 19th Century to the present. Phenomenology, existentialism, the new Marxism, structuralism, and other developments. Language, history, culture and politics. Elective Pass/Fail.
- 486-3 Early American Philosophy.** From the Colonial period to the Civil War. Elective Pass/Fail.
- 487-3 Recent American Philosophy.** Thought of Howison, Royce, Peirce, James, Dewey and others. Elective Pass/Fail.
- 490-2 to 8 Special Problems.** Hours and credits to be arranged. Courses for qualified students who need to pursue certain topics further than regularly titled courses permit. Special topics announced from time to time. Students are invited to suggest topics. Prerequisite: consent of department.
- 491-1 to 3 Undergraduate Directed Readings.** Supervised readings for qualified students. Open to undergraduates only. Prerequisite: consent of instructor.
- 496-2 to 4 Independent Studies in Classical Studies.** (See Classical Studies 496.)
- 500-3 Metaphysics.**
- 501-3 Philosophy of Religion.**
- 503-3 Philosophical Ideas in Literature.**
- 510-3 Indian Philosophy.**
- 511-3 Chinese Philosophy.**
- 512-3 Philosophy of Culture.**
- 515-3 Theory of Nature.**
- 520-3 Logic.**
- 524-6 (3, 3) Analytic Philosophy.**
- 530-3 Theory of Knowledge.**
- 531-3 Whitehead.**
- 542-3 Political and Legal Philosophy.**
- 545-3 Ethics.**
- 550-3 Theory of Value.**
- 560-3 Aesthetics.**
- 562-3 Philosophy of Human Communication.**
- 570-3 American Idealism.**
- 572-3 20th Century Philosophy.**
- 575-3 to 9 (3 per topic) Contemporary Continental Philosophy.**
- 577-6 (3, 3) Pragmatism.**
- 581-3 Plato.**
- 582-3 Aristotle.**
- 587-3 Kant.**
- 588-3 Hegel.**
- 590-2 to 12 (2 to 4 per topic) General Graduate Seminar.**
- 591-1 to 16 Readings in Philosophy.**
- 595-2 Teaching Philosophy.**
- 599-2 to 6 Thesis.**
- 600-3 to 32 (3 to 16 per semester) Dissertation.**

Photographic and Audio-Visual Technology (Program, Major)

The photographic and audio-visual technology major in the School of Technical Careers is unique in that all students complete a first year of core courses. The second year students may specialize in ultimate technical photographic laboratory curriculum or technical audio-visual curriculum.

Technical photographic courses are designed to prepare students as photographic laboratory technicians or photo finishers in industrial and commercial photographic processing agencies. Emphasis is placed on quality black and white and color photographic processes and materials. Students will study still photo-

graphic techniques in lecture/laboratory sessions and tour industrial and commercial photographic processing agencies to obtain practical understanding of commercial systems. The student should expect to invest approximately \$400 for the production of a portfolio and for the purchase of special photo chemicals and supplies. Students are to provide their own fully adjustable cameras.

Technical audio-visual courses are designed to prepare students to work with industrial, university, and public school audio-visual delivery systems. Graphic production courses will enable students to broaden their marketable skills by developing technical skills essential to the production of basic graphics for audio-visual systems. Emphasis is placed on the technical quality of the work. Students should expect to invest approximately \$300 for test equipment, tools, and graphic supplies.

The following representatives of the profession serve on an advisory committee which helps to keep the program responsive to the needs in the field. Current advisers are: Oscar Fisher, president, Oscar Fisher Company, Newburgh, N. Y., Gary Rossman, Photo Marketing Association, Jackson, Mich.; Sam Fox, president, Ethol Chemical Company, Chicago, Ill.; Norbert Dompke, president, Root Photographers, Chicago, Ill.; John Bellezza, sales manager, Root Photographers, Chicago, Ill.; L. N. Grubb, production manager, Elko Photo Products Company, Kansas City, Mo.; David Goldstein, president, D. O. Industries, Rochester, N. Y.

Students selecting either specialization will find job opportunities throughout industry for quality technicians. Graduates are limited only by their own talent, motivation, and willingness to move to where jobs are available. Job pay is directly commensurate with the technician's ability, resourcefulness, and drive.

A minimum of 66 credit hours is required for the major in photographic and audio-visual technology with specialization in either photographic laboratory or audio-visual technology. This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

PHOTOGRAPHIC AND AUDIO-VISUAL TECHNOLOGY MAJOR—TECHNICAL PHOTOGRAPHIC LABORATORY SPECIALIZATION	
GSD 101	3
Electronics Technology 250, 251	5
Secretarial and Office Specialties 101a	3
School of Technical Careers 102, 103, 115a, 153a	8
Photographic and Audio-Visual Technology 111, 113, 115, 209, 211, 215, 221, 251	48
Total	67

PHOTOGRAPHIC AND AUDIO-VISUAL TECHNOLOGY MAJOR—TECHNICAL AUDIO-VISUAL SPECIALIZATION	
GSD 101	3
Electronics Technology 250, 251, 252	7
School of Technical Careers 102, 103, 153a	6
Photographic and Audio-Visual Technology 111, 113, 115, 209, 217, 219, 275, 279	50
Total	66

Courses

111-4 Photo Processing I. Introduction to photo processing via the medium of black and

white photography. Students will receive extensive darkroom work, film processing chemistry, and technical photographic assignments essential to the production of quality black and white prints. Lecture two hours, lab four hours.

113-4 Photo Processing II (Process Camera). Students will concentrate on technical operations of the process camera as a tool in total graphic production. Work is to include line copy, halftones, experimental techniques, and introduction to color separation. Emphasis will be placed upon selection of camera-ready copy as well as film, chemistry, and processing for special purpose photography. Lecture two hours, lab four hours.

115-6 Audio-Visual Equipment-Operation. In this introductory course, students will acquire a working knowledge of the projectors, recorders, and auxiliary equipment common to educational and industrial audio-visual operations. Emphasis is placed upon the proper set up and operation of equipment, integration of the equipment for special purposes, and care of software. Lecture three hours, lab six hours.

209-3 to 9 Graphics I (Basic Skills). Students will develop basic skills essential to the production of projected, non-projected, and print media. Mechanical lettering, drafting tools, image assembly, and reproduction processes are several of the included topics. Lecture 1 to 3 hours, lab 2 to 12 hours.

211-1 to 8 (1 to 3, 1 to 5) Photo Processing III (Color Positive). Students will process color reversal films by both traditional hand-processing methods and commercial lab techniques. Emphasis will be placed on quality control in film processing and distribution of final product. (a) Lecture one to three hours. (b) Lab two to ten hours. Prerequisite: 111.

215-6 Photo Processing IV (Color Negative). Students will process and print color negatives using commercial lab techniques. Emphasis will be placed on quality control in film processing, chemical replenishing, and distribution of final product. Lecture three hours, lab six hours. Prerequisite: 211.

217-6 Maintenance and Repair of Audio-Visual Equipment. Routine maintenance, troubleshooting, and repair of mechanical or electrical problems comprise the major topics of the course. Students will use basic test equipment in conjunction with equipment manufacturers repair manual to diagnose and correct malfunctions in the various types of audio-visual equipment. Lecture three hours, lab six hours. Prerequisite: 115.

219-1 to 8 (1 to 3, 1 to 5) Graphics II — Design, Planning Production. Building upon the skills acquired in Graphics I, the student will design and produce graphic materials for specific purposes. Working with thermal, photographic, diazo, stencil, and lithographic processes, a student will produce all required art work as well as the final product. (a) Lecture one to three hours, (b) lab two to ten hours. Prerequisite: 209.

221-6 Photo Processing V. Advanced black and white photo processing. Students will refine skills necessary for quality film processing and printing requirements of both small individual photo labs and commercial labs. Emphasis will be on methods essential to meet specialized customer requirements. Lecture three hours, lab six hours. Prerequisite: 113, 211.

251-1 to 12 (1 to 3, 1 to 9) Photo Lab Management. Students will study the personnel and financial aspects of operating a commercial photo lab. Field trips will be taken to industrial, commercial, and general photo agencies to obtain first-hand knowledge of operations. An industrial planning package is required by each student. (a) Lecture one to three hours, (b) lab two to eighteen hours. Prerequisite: program advisor's committee consent.

275-6 Production of Multi-Media Materials. In addition to development of new skills which tie together various media processes, the student will apply knowledge of planning and production to produce a media package for a specific use. This requires a thorough knowledge of all graphic and photographic processes, equipment uses and limitations, as well as the specific needs of the user. Lecture three hours, lab six hours. Prerequisite: 217, 219.

279-1 to 9 (1 to 3, 1 to 6) Practicum. The planning, staffing, and operation of a total-media production facility is the major project within the course. Visits to educational and industrial facilities will be scheduled to enable students to see first-hand the problems and strong points of various organizations. Preparation of a market analysis and personal resume will also be required. (a) Lecture one to three hours, (b) lab two to twelve hours. Prerequisite: 47 hours in photographic and audio-visual technology.

313-3 Photography and Television for Law Enforcement. Students will use basic camera techniques and darkroom procedures essential to the use of photography as a tool to record and recall evidence. Instruction will be given on the use of portable television systems as surveillance and recording instruments.

Physical Education (Department, Major, Courses)

The major in physical education qualifies graduates for positions as teachers, coaches, or specialists in public or private elementary and secondary schools, colleges, and universities, as well as in other social agencies which utilize physical

activities as a medium for education. Courses are designed to meet the requirements of state departments of education and other agencies which have adopted professional standards. The laboratory and classroom experiences in this program consist of the basic and applied sciences; classes in physical skills include a large variety of team and individual activities from sport, exercise, and dance; and courses in methods of teaching.

Additional experience may be gained through membership in professional organizations, participation on intramural and inter-collegiate teams, and through practicum experiences with service classes or with recreational and school groups.

Specializations, minors, or emphases are also available in the following areas: adapted physical education, aquatics, athletic coaching, athletic training, teaching physical education in elementary schools, and teaching physical education in elementary and secondary schools. Requirements are based upon the interests and needs of the student and are consistent with certification standards. Students not interested in teacher certification may develop a special major with approval of the designated departmental representative.

In all programs, students are in contact with faculty whose reputations are nationally and internationally known and whose achievements encompass research, teaching, and service.

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45
GSA 209, GSE 201, and 2 GSE-Physical Education courses ¹	
<i>Requirements for Major in Physical Education</i>	(2) + 46
Physical Education 115a, b, c, d, e; three hours required from 116a, b, c, d, e, f; one hour required from 117a, b, c; one hour required from 118a, b, c, d, e, 230; one hour required from 119a, b, c; one hour required from 120a, b, c, d, e, f; 210; 211; 212; 214; 300; 301; 303; 305; 320; 326; 370; and one hour required from each of four of the following five areas: 215a, b, c, d; 216a, b, c, d, e; 217a, b, c; 218a, b; 220a, b, c, d	
Physiology 300	3
Physical education electives	5
<i>Electives</i>	5
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Total</i>	120

¹Physical education activity courses may substitute for GSE courses.

Minor in Physical Education

A minor in physical education may be completed provided the student obtains approval of the departmental representative for the sequence of courses.

Minor in Dance

A minor in dance may be completed provided the student obtains approval of the departmental representative for the sequence of courses.

- 115-(1 per part) Development of Skill and Identification of Teaching Techniques of Physical Activities.** (a) Aquatics. Prerequisite: GSE 101a or consent of instructor. (b) Rhythms and dance. (c) Exercise and conditioning. (d) Track and field. (e) Tumbling and gymnastics.
- 116-(1 per part) Development of Skill and Identification of Teaching Techniques of Team Sports.** (a) Basketball. (b) Field hockey. (c) Flag football. (d) Soccer. (e) Softball. (f) Volleyball.

117-(1 per part) Development of Skill and Identification of Teaching Techniques of Racquet Sports. (a) Badminton. (b) Handball/racquetball. (c) Tennis.

118-(1 per part) Development of Skill and Identification of Dance. (a) Contemporary. (b) Folk. (c) Social. (d) Square. (e) Tap.

119-(1 per part) Development of Skill and Identification of Teaching Techniques of Combatives and Weight Training. (a) Self defense. (b) Weight training. (c) Wrestling.

120-(1 per part) Development of Skill and Identification of Individual and Dual Activities. (a) Archery. (b) Boating. Prerequisite: maintaining safe position in deep water for ten minutes. (c) Bowling. (d) Fencing. (e) Golf. (f) Orienteering.

125-(1 per part) Intermediate Sport Skills. (a) Fencing. Prerequisite: 120d, GSE 104f, or consent. (b) Golf. Prerequisite: 120e, GSE 104h, or consent. (c) Sailing. Prerequisite: consent. (d) Tennis. Prerequisite: 117c, GSE 104n, or consent.

135-(1 to 3 per part) Advanced Level Sport Skills. (a) Distance Running. (b) Folk dance. (c) Gymnastics. (d) Kodokan Judo. (e) Orienteering. (f) Scuba. (g) Self defense. Prerequisite: consent of instructor.

170-(1.5 to 3 per part) Varsity Sports. (a) Football. (b) Basketball. (c) Track. (d) Tennis. (e) Gymnastics. (f) Baseball. (g) Golf. (h) Swimming. (i) Cross country. (j) Wrestling. Prerequisite: participation as member of a varsity team.

200-2 Body Mechanics and Exploratory Movement in Physical Activities for Primary Children. Provides a comprehensive coverage of the educational elements in basic movement education, its interpretation, analysis, terminology, structure, methods of teaching, and evaluative techniques. Observatory experiences provided.

201-3 Fundamental Skills and Activities of Low Organization for Children. Presents the entire scope of the physical education program for children in the intermediate grades. Course objectives, program planning, facilities, supplies and equipment, the basic activities representative of a comprehensive sports and games program, and the design of progress reports. Observatory experiences provided.

202-3 Physical Activities for Children and Youth. Developing activities for motor perceptual development and skill acquisition appropriate for different age levels of children and youth. Tennis shoes required. Dress must permit ease of movement. Prerequisite: at least sophomore standing.

205-1 Physical Problems of the School Age Student. Reviews the common physical disabilities which occur in children. Examines both acute and chronic injuries and diseases with reference to the type of physical activities best adopted by the physical problems. Prerequisite: Physiology 300.

207-2 History of Physical Education. The background and development of physical education.

208-3 Instructor of Swimming. Designed to prepare the student to teach beginning swimming through lifesaving to pre-school through adult groups.

210-2 Motor Learning. Presents the basic learning principles which underlie motor skill performances associated with physical activity and sports and examines the variables affecting skill learning. Prerequisite: at least sophomore standing.

211-1 Method of Teaching Secondary School Physical Education. Involves a clinical experience as pre-student teaching in which the assignment may be to instructional classes in school or college or to children in community sponsored programs. Prerequisite: 210, and at least sophomore standing.

212-1 Teaching Practicum. Laboratory experience with children in a school, or recreational setting or assisting in a GSE course at the University. Laboratory experience may also be arranged with special populations of children. Prerequisite: 211. Mandatory Pass/Fail.

213-2 Stage Movement. (Same as Theater 213.) Experiences in movement and improvisation for the performing artist.

214-3 Methods of Teaching Elementary Physical Education. For supervisors and teachers of physical education. Curriculum planning based on grade characteristics and educational philosophy, presentation of skills including skill tests, lead-up games, stunts and tumbling, games of low organization, creative rhythms, singing games, and folk dance. Second level (advanced course 314). Tennis shoes and appropriate dress for activity required. Open only to physical education majors. Prerequisite: 210, and at least sophomore standing.

215-(1 per part) Methods of Teaching Physical Education Activities. (a) Conditioning and weight training. (b) Swimming. (c) Track and field. (d) Tumbling and gymnastics. Prerequisite: 212, and the corresponding 115 course.

216-(1 per part) Methods of Teaching Team Sports. (a) Basketball. (b) Field hockey. (c) Soccer. (d) Softball. (e) Volleyball. Prerequisite: 212, and corresponding 116 course.

217-(1 per part) Methods of Teaching Racquet Sports. (a) Badminton. (b) Handball/racquetball. (c) Tennis. Prerequisite: 212, and corresponding 117 course.

218-(1 per part) Methods of Teaching Dance. (Same as Theater 309.) (a) Contemporary. (b) Folk, square, social. Prerequisite: 212, and corresponding 118 course.

220-(1 per part) Methods of Teaching Individual and Dual Activities. (a) Archery. (b) Bowling. (c) Golf. (d) Wrestling. Prerequisite: 212, and corresponding 120 course.

223-1 Techniques of Teaching Recreational Sports. Analysis and methods of teaching recreational sports. Prerequisite: 210.

225-1 Introduction to Athletic Training. Designed for the non-physical education major who desires to acquire the minimum essentials for athletic training. Principle of training and conditioning, the injury conditions in various body parts, and primary treatment procedures.

230-2 to 16 (2, 2, 2, 2, 2 to 8) Classical Ballet. (a) Beginning technique of classical ballet (first half). An introduction to the traditional techniques of the classic dance as an academic craft and style that serves as a basis for logical physical training of the dancer and a medium of expression for the dancer, choreographer, and teacher. Terminology employed to represent definite positions, steps, and movements to permit transmission of ideas in dance-terms to offer the beginner an initial chart for understanding of traditional steps and complete phrases in the classical ballet idiom. Exercises designed to stretch, strengthen and define line and form. Course must be taken in sequence. Women are required to have a leotard, pink tights, pink or black ballet slippers. Men are required to have a leotard or T-shirt, tights, white or black ballet slippers. (b) Beginning technique of classical ballet (second half). Continued study of the beginning syllabus with emphasis placed on centre practice. See 230a for requirements. Prerequisite: 230a or consent of instructor. (c) Intermediate Techniques of classical ballet (first half). Progressive training toward mastery of body mechanics of the classical ballet syllabus, a continuation of syllabus work and terminology with attention paid to the centre practice — adagio, allegro, and movements en l'air. See 230a for requirements. Prerequisite: 230b or consent of instructor. (d) Intermediate techniques of classical ballet (second half). See 230a for requirements. Prerequisite: 230c or consent of instructor. (e) Advanced techniques of the classical ballet. Study of the advanced classical ballet syllabus. Attention paid to the advanced students' individual progress in centre practice — adagio, allegro, steps en l'air, and enchainments. Application of the classical techniques as a means of expression as an art form. Prerequisite: 230d or consent of instructor.

240A-2 Beginning Techniques of Contemporary Dance. (See Theater 240A.) Prerequisite: 118a or GSE 103d.

240B-2 Intermediate Techniques of Contemporary Dance. (See Theater 240B.) Prerequisite: 240A.

240C-2 to 10 Advanced Techniques of Contemporary Dance. (See Theater 240C.) Prerequisite: 240B.

257-1 to 5 Current Work Experience. The student receives credit for current work experiences. Credit is awarded for many practical experiences and must be related to physical education and in process. Prerequisite: at least C average in physical education after 12 hours. Mandatory Pass/Fail.

258-1 to 5 Work Experience. The student receives credit for past work experiences. Credit is awarded for many practical experiences and must be related to physical education and already completed. Prerequisite: at least C average in physical education courses after 12 hours. Mandatory Pass/Fail.

273-4 (2, 2) History of the Dance. (Same as Theater 273.) (a) The study of dance from primitive sources through the 19th century. (b) Dance as an art form in the 20th century.

300-2 Principles of Physical Education. Designs a structure of knowledge which underlies the practice of physical education with particular reference to a philosophical framework which embraces the moral and ethical values related to the function of personnel in the environment of physical education and competitive sport.

301-2 Organization and Administration of Physical Education. Consideration of the special problems related to the organization and administration of the curriculum, facilities and equipment, personnel management, budget making, legal liability, and public relations.

302-2 Kinesiology of Normal and Pathological Conditions. Force system, its relation to the mechanic of muscle action. Analysis of muscular-skeletal forces involved in physical activities. Prerequisite: Physiology 300.

303-3 Kinesiology. Force system, its relation to the mechanics of muscle action. Analysis of muscular-skeletal forces in physical education activities. Prerequisite: Physiology 300.

304-2 Mechanical Basis of Human Movement. Applies body mechanics with application of mechanical laws and principles to performance in physical activities.

305-2 Physical Education for Special Populations. Understanding the characteristics, limitations, and activity needs of students with physical, mental, or emotional limitations; and procedures for organizing and conducting a physical education program for such special students. Prerequisite: at least junior standing.

306-1 Advanced Swimming, Skill and Analysis. Prerequisite: GSE 101b or equivalent.

307-2 Water Safety Instructor. Methods of teaching swimming and lifesaving. American Red Cross Water Safety Instructor certificate may be earned. Bathing cap recommended. Pool suit supplied or one piece nylon tank suit required. Prerequisite: 306 or current Red Cross advanced lifesaving certification. Elective Pass/Fail.

308-2 to 10 (2, 2, 2, 2, 2) Instructor of Aquatics. (a) Handicapped. (b) Skin diving. (c) Scuba diving. (d) Canoeing. (e) Swimming. Prerequisite: consent of instructor.

310-2 Aquatics Facilities Management. Learning experiences designed to aid in the development of aquatic specialists who can efficiently work toward satisfactory solutions to

the problems inherent in functional design, operation, and maintenance of aquatic facilities that are associated with schools, municipalities, and other organizations.

311-2 Lifeguarding. The skills and techniques for preparing selected individuals related to the aquatic lifeguarding task and training in the specifics of being a part of the aquatic lifeguarding system. Prerequisite: pass swimming test.

312-3 Dance Philosophies. (See Theater 312.)

313-3 Dance Composition. (Same as Theater 313.) Introduction to choreography as an art form with special emphasis given to the use of space, time, and energy. Prerequisite: 118a or 213.

314-2 Advanced Methods of Teaching Elementary Schools (Physical Education). Prerequisite: 202 or 214.

320-3 Physiological Basis of Human Movement. Immediate and long range effects of muscular activity on the systems. Integrative nature of body functions and environmental influences on human performance efficiency. Laboratory to be arranged. Prerequisite: GSA 209 or equivalent.

324-2 Advanced Methods of Teaching Special Populations. Prerequisite: 305.

325-2 Training Room Techniques. Intended for the student who wishes to complete a specialty as athletic trainer. Provides knowledge concerning the organization and administration of a training room, the installation and use of its modalities, and general procedures on training room operational functions. Prerequisite: Physiology 300.

326-2 Emergency Care and Prevention. The theoretical and practical methods of preventing and treating athletic injuries; techniques of taping and bandaging; emergency first aid; massage; use of physical therapy modalities. Lecture and laboratory sessions. Prerequisite: Physiology 300.

327-2 Medical Aspects of Athletic Injury. The student will acquire an advanced understanding of the proper prevention and rehabilitation of athletic injuries. The student will also understand medical and surgical procedures and their consequent factors to be considered in treatment programs. Prerequisite: 326.

329-2 Principles and Procedures of Coaching Women's Sports. An examination of the history, values, and trends in extracurricular sports programs for girls and women. A review of regulations and standards as determined by the governing bodies for women's sports and in-depth study of coaching procedures. Prerequisite: competitive experience and junior standing.

330-1.5 to 9 (3, 3, 3) or (3, 3, 1.5, 1.5) Techniques and Theory of Coaching. (a) Basketball. (b) Football. (c) Swimming. (d) Baseball. (e) Track and field. (f) Wrestling. (g) Tennis. (h) Gymnastics. (i) Golf. (j) Badminton. (k) Field hockey. (l) Softball. (m) Volleyball. **345-2 Psycho-Socio Aspects of Physical Education.** Provides an overview of the key sociological and psychological concepts that are applicable to athletics and to physical activity. This course is intended as an introduction to the disciplines of sociology of sport and sport psychology. Prerequisite: junior standing.

355-2 to 8 (2, 2, 2, 2) Practicum. (a) Aquatics. (b) Special Populations. (c) Coaching. (d) Athletic Training.

360-.5 to 2 (.5 per part) Theory of Officiating. (a) Badminton. (b) Basketball. (c) Field hockey. (d) Football. (e) Gymnastics. (f) Softball. (g) Competitive swimming. (h) Synchronized swimming. (i) Track and field. (j) Volleyball. (k) Wrestling. Prerequisite: the corresponding activity course.

362-1 to 2 Teaching Physical Education Activities. Teaching various activities in the area of sport with specific emphasis on current methods and approaches to learning physical education skills. Elective Pass/Fail.

365-2 Management of Interschool Athletics. A treatment of the philosophy and background of athletics in the total high school educational program; the national and state associations which guide athletic administration; the duties and responsibilities of the athletic director; and the many factors responsible for the control and administration of desirable programs.

369-2 Improving Teaching Through Testing (Workshop). Teaching aids, diagnostic measures, practices, and standardized tests for a variety of physical skills. Principles of programmed learning applied to psychomotor tasks.

370-3 Measurement and Evaluation in Physical Education. The theory of measurement in physical education, the selection and administration of appropriate tests of motor skills and the interpretation of results. Projects required. Prerequisite: junior standing.

375-2 Introduction to Research in Physical Education. Prerequisite: junior standing.

379-2 Advanced Dance Composition. (See Theater 379.) Prerequisite: 115b or 313.

400-3 Evaluation in Physical Education. Historical background of measurement in physical education; selection and evaluation of contemporary testing devices (predominantly tests of motor skill); structure and use of tests; administering the testing program; and statistical manipulation and interpretation and application of results.

402-2 Organization and Administration of Intramural and Extramural Activ-

ities. Planning intramural programs of sports. Planning and coordinating extramural activities commonly associated with physical education.

403-2 Developmental Movement Experiences Designed for the Special Child. Movement performance as applied to children of special populations. Study of movement theory and its application to developmental needs and motor-perceptual performance.

404-2 The Teaching of Sports. Principles of learning applied to selected sports; progressions, teaching methods, and related summaries of research.

407-2 Advanced Theory and Techniques in the Prevention and Rehabilitation of Athletic Injuries. The application of scientific principles to the theoretical and practical methods of preventing and treating athletic injuries.

408-2 Physical Fitness: Its Role and Application in Education. An analysis of physical fitness as it related to the total well-being of people. Specific units on the fitness parameters, hypokinetic disease and physical inactivity, stress, current level of fitness, training programs, and the beneficial aspects of regular exercise. Major emphasis is placed upon incorporating current thinking on physical fitness into the development of teaching models.

410-3 Behavioral Foundations of Coaching. Behavioral problems of the athlete and the coach and possible solutions to such problems. Application of behavioral principles and theories as a basis for understanding the interaction between coach and student in the athletic environment.

415-1 to 6 (1 per topic) Workshop in Sports. A concentrated experience in the latest theories and techniques of selected sports activities. Emphasis is placed on individual and team drills, instructional materials and improved teaching methods. One semester hour for each workshop. A total of four hours only of such workshop experience may be credited toward the master's degree. Workshop titles are: (a) Baseball, (b) Basketball, (c) Field Hockey, (d) Football, (e) Gymnastics, (f) Soccer, (g) Softball, (h) Swimming, (i) Track and Field, (j) Volleyball.

416-3 Current Theories and Practices in the Teaching of Dance. (Same as Theater 416.) Designed to aid a critical evaluation and analysis of dance as an educational tool, from creative dance for children through dance in the University curriculum. Specific techniques, creative ideas, class organization, and general evaluation will be included. All students will be expected to design and instruct a lesson under supervision of the instructor. Notebook required. Prerequisite: GSE 113d or Physical Education for Women 115h and 240.

418-2 Administration of Aquatics. The study of comprehensive aquatic programs, their implementation and coordination.

420-3 Physiological Effects of Motor Activity. The general physiological effects of motor activity upon the structure and function of body organs; specific effect of exercise on the muscular system. Requires purchase of laboratory manual. Prerequisite: GSA 209 or equivalent.

444-2 to 6 Contemporary Dance Workshop. Dance technique and theory, composition, improvisation, and production. Advanced study of the problems of choreography and production in their presentation as theater. Public performance is required. Prerequisite: one year of technique and theory or equivalent.

493-2 to 4 Individual Research. The selection, investigation, and writing of a research topic under supervision of an instructor. (a) Dance, (b) Kinesiology, (c) Measurement, (d) Motor Development, (e) Physiology of Exercise, (f) History and Philosophy. Written report required. Prerequisite: consent of adviser and department chairman.

494-2 (1, 1) Practicum in Physical Education. Supervised practical experience at the appropriate level in selected physical education activities in conjunction with class work. Work may be in the complete administration of a tournament, field testing, individual or group work with special populations, administration of athletics or planning physical education facilities. Prerequisite: consent of adviser.

500-3 Techniques of Research.

501-3 Curriculum in Physical Education.

503-2 Seminar in Physical Education.

505-2 to 6 (2 per topic) Topical Seminar in Physical Education.

506-2 Topical Seminar in the Assessment of Motor Performance.

508-2 Administration of Athletics.

510-2 Motor Development.

511-2 Analysis of Human Physical Movement.

512-2 Biomechanics of Human Motion.

513-3 Perceptual Motor Learning of Physical Skills.

515-3 Body Composition and Human Physical Performance.

517-2 Athletic and Physical Education Facilities Design, Construction, and Maintenance.

520-3 Metabolic Analysis of Human Activity.

530-2 Seminar in Research in Motor Performance.

590-1 to 4 Readings in Physical Education.

592-3 Research Projects in Physical Education.
599-3 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.

Physical Therapist Assistant (Program, Major, Courses)

The Physical Therapist Assistant program, which has interim approval of the American Physical Therapy Association, is designed to prepare the student to work under the direction of a licensed physical therapist to treat disabilities resulting from birth defects, disease, or injury. Following the prescriptions of a physician, the therapist helps the patient to develop strength, mobility, and coordination, and provides relief from pain.

Students will learn massage, exercise, ultra sound, hydrotherapy and other therapeutic techniques in actual practice in the University's Clinical Center. They will work with professional therapists in learning such complex procedures as administering manual muscle tests, electrical muscle and nerve tests, and other evaluative measures.

Before graduation the student will serve a twelve-week internship in two separate hospitals away from the university campus.

The program is served by an advisory committee which provides supportive expertise. Current members are: David Collins, chief physical therapist, St. Mary's Hospital, Decatur; Virginia Daniel, chairman, department of physical therapy, School of Related Health Sciences, Chicago Medical College; Dr. Harold Kaplan, department of physiology, Southern Illinois University at Carbondale, Dr. Bruce Safman, medical director, department of physical medicine, Mercy Hospital, Urbana; Ruffin Walden III, chief physical therapist, Memorial Hospital, Springfield; Barbara Freeman, physical therapist assistant, Springfield; and Kathy Breitwiser, student, Carbondale.

The student should expect to spend approximately \$100.00 for uniforms and insurance.

Increasing numbers of elderly and chronically ill persons and the rapid expansion of health care programs in both urban and rural areas have created an urgent demand for trained physical therapists. Employment opportunities are available in hospitals, rehabilitation centers, and extended care facilities.

Physical therapy provides a unique service and requires a close interpersonal relationship with the patient. The candidate must possess the following qualities to work with people. 1) good mental and physical health, 2) stamina, 3) good coordination and manual dexterity, and 4) spirit of cooperation.

The prospective student should plan to make early application for admission to this program because enrollment is limited by size of faculty and physical facilities.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Physical Therapist Assistant

GSA 101, 106, 208, 209	10
GSB 202	3
GSD 101, 152	5
Health Education 334	3
Physiology 300	3
Physical Education 302, 320, and 325 or 326	7
Psychology 301, or 303, or 304, or 305	3
Zoology 118	4

Physical Therapist Assistant 100, 113, 202, 203, 204, 205, 207, 208, 209, 213, 214, 321, 322	35
Electives	3
Total	72

Courses

100-2 Physical Therapy Orientation. Students will be able to describe the historical background, professional ethics, and legal aspects of physical therapy practice. They will be able to understand and utilize specialized medical terminology. They will be able to prepare treatment areas and patients for treatment. They will be able to understand the relationship of physical therapy to total health care. Lecture one hour. Laboratory two hours.

113-1.5 Therapeutic Modalities I. The student will be able to demonstrate procedures used in the safe application of local heat and cold such as hot and cold packs, infra-red, and paraffin bath, and will also be able to demonstrate safe hydrotherapy procedures such as whirlpool and contrast baths. Lecture one hour. Laboratory two hours. Eight weeks.

202-2 Physical Rehabilitative Techniques. The student will be able to demonstrate rehabilitative procedures such as bed positioning, range of motion exercises, transfer activities and gait training, and will understand the concepts of total rehabilitation. Lecture one hour. Laboratory two hours.

203-1 Pathology. The student will be able to understand the fundamental basis of disease. Emphasis will be placed on those conditions treated through physical therapy procedures. The student will be able to describe the process of inflammation and repair bone and soft tissue injuries. Lecture one hour. Prerequisite: GSA 209.

204-2 Physical Therapist Assistant, Practicum I. Students will be able to carry out routine physical therapy assisting procedures with selected patients. They will be able to demonstrate previously learned skills in massage, hydrotherapy, range of motion exercises, activities of daily living, and the safe application of heat and cold. They will also be able to assist in maintaining records and equipment. Lecture one hour. Laboratory three hours. Prerequisite: 113, 202, 207.

205-2 Physical Therapy Science. The student will be able to describe selected medical and surgical conditions from the standpoint of etiology, clinical signs and symptoms, and physical therapy treatment. Lecture two hours. Prerequisite: 100, GSA 209, Physiology 300.

207-1.5 Massage. The student will be able to demonstrate massage techniques for specific conditions through role playing and supervised application of massage to selected patients, and will understand the scientific principles of massage and be aware of indications and contraindications for massage. Lecture one hour. Laboratory three hours. Eight weeks. Prerequisite: 100, 202.

208-3 Therapeutic Exercise I. Design to teach basic exercises for individual muscles or muscles groups, including breathing and postural exercises. Successful students will learn to select exercises for specific results; i.e., increasing strength, coordination, endurance, and range of motion. They will also learn normal motor development reflexes. Lecture two hours. Laboratory three hours. Prerequisite: Physiology 300.

209-3 Therapeutic Exercise II. Successful students will be able to administer therapeutic exercise techniques for specific clinical conditions through demonstrations and supervised application of exercise for selected patients. They will understand the scientific principles of therapeutic exercise and acquire the skills to effectively and safely utilize exercise equipment. Lecture two hours. Laboratory two hours. Prerequisite: 208, Physiology 300.

213-2 Therapeutic Modalities II. The student will be able to demonstrate procedures used in the safe application of local heat and cold such as diathermy, ultra violet, and ice massage and understand their physiologic effects. The student will be able to describe the indication and contraindications for the use of heat and cold. Lecture one hour. Laboratory two hours. Prerequisite: GSA 101.

214-3 Physical Therapist Assistant, Practicum II. Successful students will be able to carry out more complex physical therapy assisting procedures with selected patients. They will be able to demonstrate previously learned skills in therapeutic exercise, electrical muscle stimulation, and the safe application of such modalities as ultra sound, diathermy, and ultra violet. They will be able to assist in maintaining records and develop cooperative spirit with other members of the department. Lecture one hour. Laboratory five hours. Prerequisite: 204, 208, 213.

321-10 (5, 5) Clinical Internship. The successful student will be able to apply previously learned theories and techniques of patient care through closely supervised practicum experience in two large general hospitals. (a) First six week internship. (b) Second six week internship. Must be taken in a,b sequence. Prerequisite: completion of all other requirements with a minimum grade average of 2.0.

332-2 Clinical Seminar. Students will be able to discuss with the coordinator of the program patient care and problems encountered during internship. They will have the opportunity to evaluate their educational experience at Southern Illinois University at

Carbondale and their clinical internship experience. Prerequisite: concurrent enrollment in 321. Mandatory Pass/Fail.

Physics and Astronomy (Department, Major [Physics], Courses)

The undergraduate major in physics leading to the Bachelor of Sciences degree provides for a mastery of basic principles and methods of classical and modern physics and for flexibility in application through a breadth of covering in the field. Students considering a major in physics are urged to consult with the undergraduate adviser of the physics department.

Bachelor of Science Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>Supplementary College of Science Requirements</i>	11
Foreign Languages (French, German, or Russian recommended)	(4) + 4
Biological Science (Not General Studies)	6 ³
Mathematics 111	(4) + 1
<i>Requirements for Major in Physics</i>	65-66
Chemistry 115 ² and 222a, or 222a,b, or 224, 225	7-8
Mathematics 150, 250, 251, 305, and 306 or 406 or 407	17
Physics	41
Physics 204a, b, and 254a,b or 205a, b and 255a, b	8
33 hours from: 255c, 301, 310, 320, 340, 350 or 351, 410, 420, 430, 431, 445, 450 or 470, and one of 424, 425, 428, 432	33
<i>Total</i>	121-122

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

²For students who do not pass a proficiency examination in chemistry.

³If courses are selected which are approved General Studies substitutes the hours earned will reduce the 45 hour requirement in General Studies.

Bachelor of Science Degree, College of Education

For this degree the requirements differ from those for the Bachelor of Arts degree in the following respects: No foreign language is required, but 4 hours of General Studies foreign language may be counted toward the GSC requirement in the College of Education. Twenty-two hours of 300 or above physics courses, including 310, 320, 430, 431, and 432 and 4 hours of laboratory courses selected from 350, 351 and 450 are required for the major in physics. To obtain the degree of Bachelor of Science in the College of Education students must satisfy requirements of that college. See Teacher Education Program, page 63.

Audio Marketing

Students interested in preparing themselves for positions related to audio-marketing within the high-fidelity industry are encouraged to take the following courses, which will provide skills needed for a career in high-fidelity sales:

Science Courses: GSA 101, Physics 325, 355

Music Courses: GSC 100, GSA 361

Business Courses: Accounting 210 or 221; GSB 211, Economics 214, 215; Marketing 304, 401

Minor

A minor in physics requires 17 hours and must include Physics 203a, b and 253

a, b, or 204a, b and 254a, b, or 205a, b and 255a, b and two of the following: 205c and 255c or 302 and 255c; and 324 and 350 or 328 and 351 (no calculus prerequisite). Students having completed calculus (through Mathematics 250) may select 340 and those taking differential equations may select from 310, 410, and 320, 420, to meet requirements.

Recommended electives:

Chemistry: 226, 340, and 460 or 462

Engineering: 222, 313, 361

Electrical Sciences and Systems Engineering: 421, 426

GSB: 211

Geology: 416, 435, 436

Mathematics: 221, 306, 406, 407, 421, 452, 455, 475, 480, 481, 483

Courses

102-1 Everybody's Einstein. A non-mathematical presentation of Einstein's relativity theories on a popular level.

203-6 (3, 3) College Physics. Designed to meet preprofessional requirements and the needs of all students in the sciences, except physics and engineering. (a) Mechanics, heat, and sound; (b) Electricity, magnetism, light, and quantum physics. Three lectures, one quiz session. Prerequisite: Mathematics 110b or 111. Elective Pass/Fail.

204-6 (3, 3) College Physics—Honors. Designed for all students of the sciences, but restricted to freshmen who have satisfactorily completed, or have advanced standing in, the mathematics prerequisite. (a) Mechanics, heat, and sound; (b) Electricity, magnetism, light, and quantum physics. Three lectures, one quiz section. Prerequisite: Mathematics 110a or 111 or advanced standing. Elective Pass/Fail.

205-9 (3, 3, 3) University Physics. (a) Introduction to mechanics of rigid bodies and fluids; wave motion, heat, kinetic theory, and thermodynamics. Prerequisite: Mathematics 150 or concurrent enrollment. (b) Continuation of 205a. Electricity and magnetism, geometrical optics, diffraction, interference, quantum physics. Three lectures, one quiz session. Prerequisite: 205a. (c) Introduction to concepts in modern atomic, molecular, and nuclear physics: particles and waves, relativity and quanta. Three lectures per week. Prerequisite: 203 or 204 or 205a,b. Elective Pass/Fail.

206T-1 College Physics. Same as the first half of 206b, with topical order of heat, sound, and light.

207T-3 College Physics Laboratory. Same as the first half of 207b, with topical order of heat, sound, and light.

211T-1 University Physics. Same as first half of 211b, with topical order of heat, sound, and light.

212T-3 University Physics Laboratory. Same as first half of 212b, with topical order of heat, sound, and light.

253-2 (1, 1) College Physics Laboratory. One three-hour laboratory period per week, taken concurrently with 203. Elective Pass/Fail.

254-2 (1, 1) College Physics Honors Laboratory. Laboratory courses that accompany 204a,b respectively. Prerequisite: concurrent enrollment in 204. Elective Pass/Fail.

255-3 (1, 1, 1) University Physics Laboratory. (a), (b) Laboratory courses that accompany 205a, b respectively. Prerequisite: concurrent enrollment in 205. (c) One three-hour laboratory period per week. Experiments relating to concepts of modern physics. Prerequisite: 203 or 204 or 205a, b and 205c or 302 or concurrent enrollment. Elective Pass/Fail.

301-2 Theoretical Methods in Physics. Introduction to theoretical methods of general usefulness in intermediate and advanced undergraduate physics, with particular emphasis on applications of these methods to selected topics. Required of all physics majors prior to taking 310 or 320. Prerequisite: 203a or 204a or 205a, Mathematics 250 or consent of instructor. Elective Pass/Fail.

302-3 Astronomy—Honors. Current knowledge of the universe and the gathering of that knowledge. Includes properties of the solar system and theories of its origin, the structure and evolution of stars. Supplemented by occasional hours of evening observation. Prerequisite: one of 203a, 204a, 205a, plus Mathematics 111, or consent of instructor. Elective Pass/Fail.

310-3 Mechanics I. Motions of systems of particles and rigid bodies: gravitation, moving coordinate systems. Prerequisite: 301 or Mathematics 305 or concurrent enrollment. Elective Pass/Fail.

320-3 Electricity and Magnetism I. The theory of electric and magnetic fields; electrostatic fields in vacuum and in material media, special methods for the solution of electrostatics problems, energy, and force relations in electrostatic fields; stationary electric fields in conducting media, electric currents, magnetic fields, magnetic properties of matter. Prerequisite: 301 or Mathematics 305 or concurrent enrollment. Elective Pass/Fail.

324-2 Electric Circuits. An introduction to electrical circuits and electronics for science

students. Basic terminal characteristics and application of semiconductor and vacuum devices as circuit elements in power supplies, amplifiers, and oscillators. Prerequisite: 203 or 204 or 205, Mathematics 111. Elective Pass/Fail.

325-3 Advanced High-Fidelity. A study of the more advanced scientific concepts in high fidelity including Quadraphonic sound, FM and AM modulation, Noise Reduction Systems, Equalizers, as well as discussions on the important technical parameters of tuner, tape decks, speakers, microphones, amplifiers, cartridges, turntables, and headphones. Prerequisite: GSA 101.

328-2 Light. Light propagation, reflection, refraction, interference, diffraction, polarization, and optical instruments. Prerequisite: 203 or 204 or 205. Elective Pass/Fail.

340-2 Thermodynamics. Macroscopic thermal properties of matter and the laws of thermodynamics. Prerequisite: 203 or 204 or 205 and Mathematics 250. Elective Pass/Fail.

350-2 Electric Circuits Laboratory. A laboratory course in practical and precision measurements on electrical and electronic circuit elements, passive and active, including semiconductor devices, electron tubes, and the basic circuits employing them in power supplies, amplifiers, and oscillators. Prerequisite: 324 or concurrent enrollment. Elective Pass/Fail.

351-1 Optics Laboratory. Advanced experiments in geometrical and physical optics. One three-hour laboratory per week. Prerequisite: 328 or concurrent enrollment. Elective Pass/Fail.

355-1 Advanced High-Fidelity Laboratory. The lab accompanies Physics 325 and allows students to perform all of the electronic measurements necessary to characterize high fidelity components. Measurements will include such specifications as distortion, frequency response, stereo separation, power levels, FM sensitivity, selectivity, etc. Prerequisite: concurrent or previous enrollment in 325.

401T-1 Mechanics. Same as first half of Physics 401.

410-3 Mechanics II. Lagrange's equations, mechanics of continuous media, inertia and stress tensors, rotation of rigid bodies, small vibrations, and advanced principles. Prerequisite: 310 or consent of instructor. Elective Pass/Fail.

415T-2 Modern Physics. Same as 415B and second half of 430, offered during the second half of the fall semester (415A-3 quarter hours plus 415B-two semester hours equals 430-four semester hours.)

420-3 Electricity and Magnetism II. Induced electromotive force, quasisteady currents and fields, Maxwell's equations, electromagnetic waves and radiation, with applications. Prerequisite: 320 or consent of instructor. Elective Pass/Fail.

424-2 Electronics. An introduction to electronic circuit design and applications for advanced undergraduate students of science. Basic vacuum tube and transistor circuits employing amplification, feedback, and rectification are studied, principally for small signals including noise and linear operation. Applications to power supplies, amplifiers, oscillators, and detectors used in research are emphasized. Prerequisite: 324 or consent of instructor. Elective Pass/Fail.

425-2 Physics of Modern Electronic Devices. Physical principles of the semiconducting, ultrasonic, and electro-optic elements used in modern electronics. Prerequisite: 324 or consent of instructor. Elective Pass/Fail.

428-2 Modern Optics. Advanced course in modern optics covering such topics as interference and interferometers, coherence, diffraction, holography, optics of solids, lasers, and non-linear optics. Prerequisite: 328 and 420. Elective Pass/Fail.

430-4 Modern Physics. Lectures on the experimental basis of modern physics. Introduction to quantum mechanics with emphasis on applications in atomic physics. Prerequisite: 310 and 320. Elective Pass/Fail.

431-2 Molecular Physics. Molecular spectra and structure. Prerequisite: 430. Elective Pass/Fail.

432-3 Nuclear Physics. Basic nuclear properties and structure; radioactivity, nuclear excitation, reactions; nuclear forces and the two-nucleon problem; production and study of high energy particles and radiations. Prerequisite: 430. Elective Pass/Fail.

445-3 Statistical Mechanics. An introductory course in the principles and applications of classical and quantum statistical mechanics. Elementary kinetic theory of matter. Prerequisite: 340 and 430 or concurrent enrollment. Elective Pass/Fail.

450-1 Modern Physics Laboratory. Introduces students to experimental research and encourages them to develop and carry out experiments. Prerequisite: 205c, either of 350 or 351, or consent of instructor. Elective Pass/Fail.

460-8 (4, 4) Physical and Applied Acoustics. Coordinated lecture and laboratory study in acoustical phenomena. Topics include vibration analysis, wave mechanics, two and three dimensional propagation and applications in physics, materials science, engineering, architecture, music, and environmental science. Emphasis on laboratory and field techniques with modern computer analysis. Prerequisite: 301 or Mathematics 305 or concurrent enrollment. Elective Pass/Fail.

- 470-1 to 3 Special Projects.** Each student chooses or is assigned a definite investigative project or topic. Prerequisite: 310, 320. Elective Pass/Fail.
- 480-3 Topics in Classical Physics.** Assists experienced teachers to improve their understanding of classical physics and the strategy of presenting it. Emphasis on demonstration of phenomena as basic strategy in the introduction to new material. Attention given to the design of demonstration apparatus. Related laboratory experience is an integral part of the course. Prerequisite: consent of department. Elective Pass/Fail.
- 481-3 Topics in Modern Physics.** Assists experienced teachers to extend their understanding of modern physics. Lectures and demonstrations aim at improvement of the means of presenting the ideas of modern physics. Related laboratory experience is an integral part of this course. Prerequisite: consent of department. Elective Pass/Fail.
- 482-2 (1, 1) In-Service Institute for Teachers of Physics.** A series of lectures, demonstrations, discussions, and films to assist teachers of high school physics in meeting their classroom problems and responsibilities. Prerequisite: consent of department. Elective Pass/Fail.
- 500-6 (3, 3) Mathematical Methods in Physics.**
- 510-4 Classical Mechanics.**
- 511-3 Mechanics of Deformable Bodies and Fluids.**
- 520-7 (4, 3) Electromagnetic Theory.**
- 530-6 (3, 3) Quantum Mechanics.**
- 531-6 (3, 3) Advanced Quantum Mechanics.**
- 535-6 (3, 3) Atomic and Molecular Physics.**
- 545-6 (3, 3) Statistical Mechanics.**
- 560-6 (3, 3) Nuclear Physics.**
- 565-6 (3, 3) Solid State Physics.**
- 570-1 to 4 Special Projects in Physics.**
- 571-6 (3, 3) X-Ray Diffraction and the Solid State.**
- 575-2 to 4 Selected Topics in Physics.**
- 581-1 to 3 Graduate Seminar.**
- 599-1 to 6 Thesis.**

Physiology (Department, Major, Courses)

The Department of Physiology offers training in mammalian physiology, cellular and comparative physiology, pharmacology, biophysics, and human anatomy. The undergraduate major in physiology provides general rather than specialized training in physiology. To become a professional physiologist usually requires the completion of an advanced degree in the field. An undergraduate major in physiology would provide an excellent foundation for those planning a career in teaching or research as well as for those planning a career in a medical field such as medicine, dentistry, veterinary science, nursing, or medical technology. Students considering a major in physiology are urged to consult with the undergraduate adviser of the Department of Physiology.

Bachelor of Arts Degree, College of Science

General Studies Requirements	45
College of Science Requirements	5
Foreign Languages	(4) + 4
Mathematics 110a, b or 111 (or equivalent), or 140	(4) + 1
Requirements for Major in Physiology	57
Physiology Courses	24
Physiology 410a,b	10
Physiology electives	14
To be chosen from courses offered in the Department of Physiology, except 258 and 259.	
Physical Sciences	27
Chemistry 222a,b, 344, 345, 346, 347	19
Physics 203a,b and 253a,b	8

Biological Sciences	6
Two from Biology 305, 307, 309	
<i>Electives</i>	13
<i>Total</i>	120

Minor

A minor in physiology requires a minimum of 16 hours of course work, 10 hours of which must be selected from the courses offered in the Department of Physiology, except 258 and 259. The remaining course work may be derived from closely related areas with prior approval of the department.

Junior-Senior Honors Program

Juniors who have shown outstanding ability in biology courses and related subjects in their freshman and sophomore years may apply for acceptance into the honors program. Honors students do independent study in the physiological sciences (Physiology 491) during their junior and senior years.

Courses

210-4 Introductory Human Physiology. Beginning course in human physiology designed for majors in physiology and other biological sciences, and recommended to premedical and other students considering health professions. Three lectures per week and one two-hour laboratory. Not open to students who have taken GSA 209. Prerequisite: one year of biological science and a reasonable knowledge of chemistry.

258-2 to 8 Work Experience Credit. Under special circumstances, practical experience in laboratories or other work directly related to physiology can be used as a basis for granting credit in physiology. Credit for past work experience is sought by petition to the chairman of the department and requires approval of the dean of the College of Science. Credit for on-going work experiences requires approval by the chairman of the department prior to enrollment.

259-2 to 8 Occupational Education Credit. Under special circumstances, advanced training in a paramedical or other field directly related to physiology can be used as a basis for granting credit in physiology. Such credit is sought by petition to the chairman of the department and requires approval of the dean of the College of Science.

300-3 Human Anatomy. Lectures, demonstrations, and observations of the prosected body. Course primarily for students of physical education, with emphasis on musculoskeletal and nervous systems. Three lecture hours per week. Not open to students who have taken 301.

301-4 Survey of Human Anatomy. Lectures, demonstrations, and observations of the prosected body, plus experiences in the anatomy laboratory. Course is designed for students in nursing, mortuary science, biological science, and related disciplines. Three lecture hours and one two-hour laboratory per week. Not open to students who have taken 300.

401-10 (5, 5) Advanced Human Anatomy. Dissection of the human body. Primarily for students with a major in physiology or other biological sciences. Two hours lecture, six hours laboratory per week. Prerequisite: due to limited facilities, permission of the instructor is required.

402-5 (3, 2) Concepts of Anatomy. A detailed survey of human anatomy for preprofessional students with an interest in the biomedical disciplines, including radiographic, cross-sectional, and histological correlates. Three lectures per week fall semester, two lectures per week spring semester. Should be taken in a, b sequence. Not open to students who have had 401. Prerequisite: senior standing or consent of instructor.

410-10 (5, 5) Mammalian Physiology. Physical and chemical organization and function in mammals, with emphasis on the human. Physiology of blood and circulation, respiration, digestion, metabolism, excretion, endocrines, sensory organs, nervous system, muscle. Primary course for all students majoring in physiology or related sciences. Three lectures and two two-hour laboratory sessions per week. May be taken in any sequence. Prerequisite: college level chemistry and physics and at least junior standing.

411-4 (2, 2) Experimental Animal Surgery. (a) Covers animal care and preparation, anesthesia, etc.; one lecture and one two-hour laboratory per week. (b) Provides training and practice in surgical procedures. Two two-hour laboratories per week. Must be taken in a,b sequence.

414-3 Anatomy and Physiology of Speech and Hearing Mechanisms. (Same as Speech Pathology and Audiology 314.) Structure and function of the vocal apparatus and hearing. Primarily for students in speech pathology and audiology. Two hours lecture and one two-

hour laboratory per week. Prerequisite: consent of instructor required for graduate students.

420-6 (3, 3) Principles of Pharmacology. Action of drugs and other chemical substances on the living organism; pharmacodynamics, chemotherapy, toxicology, and therapeutics. Pharmacologic action of analgesics, emetics and antimitotics; pharmacology of the nervous system; pharmacology of the muscles; antihistaminics; drugs that affect the eye; drugs that combat infectious diseases. Two lectures and one two-hour laboratory per week. May be taken in any sequence. Prerequisite: organic chemistry and basic courses in biology, or consent of instructor.

430-4 (2, 2) Cellular Physiology. The nature and mechanisms of function of the living cell. Chemical and physical analysis of function at the cellular level. Two lectures per week. Prerequisite: organic chemistry.

433-4 Comparative Physiology. Variations of physiological processes in animal phyla, and comparison of these with human physiology. Three lectures and one discussion period per week. Prerequisite: one year of biological science.

440-4 Biophysics. Applications of classical and modern physics in physiological studies, with emphasis on quantitative physical studies of physiological functions, effects of physical environmental factors, and use of physical techniques for physiological studies. Four lectures per week. Prerequisite: one year of college physics, one year of college biology.

460-2 Electron Microscopy. Lectures, demonstrations, and experience on specimen preparation and use of the electron microscope. One lecture and one two-hour laboratory per week. Prerequisite: due to limited facilities, permission of the instructor is required.

461-3 Biomedical Electronics. Practical experience with modern electronic circuits and devices used for biomedical purposes, with circuit construction and troubleshooting practice. Two lectures and one two-hour laboratory per week. Prerequisite: consent of instructor.

491-3 to 8 Independent Research for Honors. Supervised readings and/or laboratory research in physiology. Undergraduate honors students only. By special arrangement with the instructor with whom the student wishes to work.

492-1 to 3 Special Problems in Physiology. By special arrangement with the instructor with whom the student wishes to work. Open to undergraduates only.

500-1 to 6 (1 per semester) Advanced Seminar in Physiology.

520-3 Advanced Endocrinology.

530-3 Advanced Cellular Physiology.

531-2 Advanced Cellular Physiology Laboratory.

533-4 Advanced Comparative Physiology.

540-3 Advanced Biophysics.

560-2 Physiological Techniques.

570-3 to 43 Advanced Physiological Topics.

590-1 to 4 Readings or Research in Current Physiological Topics.

599-1 to 6 Thesis Research.

600-1 to 32 Dissertation Research.

Plant and Soil Science (Department, Major, Courses)

The department of Plant and Soil Science includes crop production, horticulture, and soils. There are many widely varied opportunities for students with an interest in plants or soils. Students may choose a general option within the department and select most of their upper division credits from a wide choice of electives throughout the School of Agriculture and the University. If interests are more specialized, students may elect the science option and specialize in one particular area, or may elect a specialization which will combine a broad background in plants and soils with selected business courses and business related electives. A specialization in environmental studies would familiarize the student with environmental problems relating to plants and soils.

Students selecting the landscape horticulture specialization can prepare for interesting careers in landscaping or gardening in parks, playgrounds, residential or industrial areas, road and street parkway improvement and maintenance, and in other public and private work to make the environment more pleasing and useful.

Opportunities for individual program development within the various options may be realized through work experience, internships, special studies, and seminars; however, no more than 30 hours of such unstructured coursework may be

counted toward the degree. Students in all specializations are urged to make use of them to meet the goals and needs of their respective programs.

There may be extra expenses for field trips, manuals, or supplies in some courses.

Bachelor of Science Degree, School of Agriculture

	SPECIALIZATIONS		
	General	Science	Business
<i>General Studies Requirements</i>	48	49	48
GSA 101 or physics substitute ¹	—	3	—
Chemistry 140a substituted for			
GSA 106-3	4	—	4
Chemistry 222a	—	4	—
Botany 200 and 201 substituted for			
GSA 115-3	4	4	4
Agricultural Industries 204			
substituted for GSB 211	3	3	3
GSB 202	—	—	3
GSD 101	3	3	3
GSD 107	4	—	4
GSD 117 or 118 ²	2	2	2
GSD 153	3	3	3
Mathematics 110 or 111	—	5	—
<i>Requirements for Major in Plant</i>			
<i>and Soil Science</i>	53	64	64
Courses in two other departments			
in agriculture	7	7	7
Botany 320	4	4	4
Chemistry 140b	4	—	4
Chemistry 222b, 340, and 341	—	10	—
Plant and Soil Science 200, 220,			
240, 381-1	11	11	11
Other Plant and Soil Science courses	13	13	13
Other Agriculture electives	14	9	9
Mathematics, physical sciences,			
or biological sciences	—	10	—
Accounting 210, Administrative			
Sciences 301, Marketing 304, or			
Agricultural Industries 360	—	—	9
Business electives and supporting			
courses	—	—	7
<i>Electives</i>	19	7	8
<i>Total</i>	120	120	120

¹Physics 203a, 204a, or 205a may be substituted.

²GSD 118 is highly preferred.

PLANT AND SOIL SCIENCE MAJOR—LANDSCAPE HORTICULTURE SPECIALIZATION

<i>General Studies Requirements</i>	48
Chemistry 140a substituted for GSA 106-3	4
Botany 200 and 201 substituted for GSA 115-3	4
Agricultural Industries 204 substituted for GSB 211	3
GSB 202	3

GSD 101	3
GSD 107	4
GSD 117 or 118 ¹	2
GSD 153	3
<i>Requirements for Major in Plant and Soil Science with a Specialization in Landscape Horticulture</i>	66-68
Agricultural Industries 376	2
Biology 307	3
Botany 320 and 456 or 457	7-8
Chemistry 140b	4
Geography 470a	3
Plant and Soil Science 200, 220, 240, 322, 327a,b, 328a,b, 381-1, 420, 428a,b, 432 or 434	35-36
Agriculture electives	9
Zoology 316	3
<i>Electives</i>	4-6
<i>Total</i>	120

¹GSD 118 highly preferred.

PLANT AND SOIL SCIENCE MAJOR—ENVIRONMENTAL STUDIES SPECIALIZATION

<i>General Studies Requirement</i>	49
Chemistry 224 or chemistry substitute ¹	5
Botany 200 and 201 substituted for GSA 115-3	4
GSA 330	3
Economics 214 substituted for GSB 211	3
GSB 212, 220	7
GSC 221	3
GSD 101	3
GSD 118	2
GSD 153	3
GSD 107	4
<i>Requirements for Major in Plant and Soil Science with a Specialization in Environmental Studies</i>	68
Agriculture 333	2
Animal Industries 455	2
Agricultural Industries 401, 440	6
Plant and Soil Science 200, 220, 240, 381-1, 419, 420, 441, 447, 468	27
Agriculture electives, Plant and Soil Science 328a and 346 highly recommended	9
Thermal and Environmental Engineering 314	4
Economics 215, 333	6
Political Science, 325, 340	6
Chemistry 225 ¹	2
Botany 320	4
<i>Electives</i>	3
<i>Total</i>	120

¹Chemistry 222a, b may be substituted.

Minor

A minor in plant and soil science is also available. A total of 16 hours within the department is required. Of the required hours, one course must be selected from 200, 220, or 240. An adviser within the department should be consulted before selecting this field as a minor.

Courses

100-2 Plants for Man. Exploration of the plant-man interdependency. Provides the student with an awareness of the importance of plants to man's health and physical well-being. A plant and soil science major may not apply this course toward the required departmental hours but may use it as an agriculture elective. Elective Pass/Fail.

140-2 Soils and Man. The importance of soil in Man's everyday life. Soil as a substrate to grow Man's food and fiber needs. Soil as a medium for plants grown for Man's leisure and appreciation. The importance of soil in reducing harmful chemicals and wastes and improving our environment. Not applicable to a major or to a minor in plant and soil science. Elective Pass/Fail.

200-3 Principles of Field Crop Production. Production of important field crops of the world with greatest emphasis on U.S. and midwestern field crops; crop production changes and adjustments, crop distribution over U.S., and crop groups and classifications, special agronomic problems, crop enemies, crop ecology, fertilizer and liming practices, tillage, crop improvement through breeding. Field trip (no cost).

220-3 General Horticulture. General principles of plant propagation, vegetable growing, fruit growing, landscape gardening, and floriculture. Field trip (no cost). Seniors cannot enroll without consent of department.

225-2 Genetics for the Amateur Gardener. An introduction to the essential principles of genetics and plant hybridization utilizing common garden and house plants.

228-2 Floral Arrangements. Theory and practice in the art of flower and plant arrangement for the home, show, and special occasions. History, elements, and principles of design and use of color.

238-2 Home Gardening. Vegetable gardening techniques for the home gardener. Both inorganic and organic methods are used together with the latest recommended varieties for the small garden.

240-4 Soil Science. (Same as Forestry 240.) Basic and applied chemical physical and biological concepts in soils. The origin, classification and distribution of soils and their relationship to man and plant growth. Prerequisite: a course in chemistry; geology suggested.

257-1 to 10 Work Experience. Credit for on-campus work experience in the areas of plant and soil science, or credit through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Credit awarded based on 4 hours of work per week during the semester for each hour of credit. Prerequisite: consent of instructor. Mandatory Pass/Fail.

258-1 to 30 Prior Work Experience. Credit for work experience prior to University entrance in the areas of plant and soil science. Credit awarded based on 7.5 hours credit per year of career related full-time employment. Proportionately lesser amounts of credit authorized for shorter employment period. No grade for prior work experience. Prerequisite: consent of chairman.

300-5 (2, 3) Field Crop Production. Principles of growth and production of field crops and their utilization. (a) Primarily corn and soybeans. (b) Small grains primarily wheat and grain sorghum with laboratory demonstrating principles discussed in both a and b including research projects, and grading and utilization of grain. Laboratory field trips, approximately \$5. Prerequisite: an introductory crops course or consent of instructor. Elective Pass/Fail.

305-4 Plant Genetics. Principles of genetics and evolution of plants, elementary plant breeding, and the interaction between plant breeding and industry. Prerequisite: a course in biology. Elective Pass/Fail.

310-3 Morphology of Crop Plants. Cellular structure, vegetative and reproductive development, and grass morphology of major crop plants. Utilization of crop plant parts. Prerequisite: one course in introductory biology or equivalent. Elective Pass/Fail.

322-3 Turfgrass Management. Principles and methods of establishing and maintaining turfgrass for lawns, recreational areas, and public grounds. Identification of basic plant and soil materials and management of turfgrasses in variable environments. Prerequisite: a biology course.

325-3 Garden Flowers. Culture, identification, and use of flowering bulbs, annuals, biennials, and perennials in the home flower garden. Prerequisite: an introductory course in biology or consent of instructor. Elective Pass/Fail.

327-4 (2, 2) Landscape Plant Materials. (a) Identification, usage and adaptability to the landscape of woody, deciduous, and ornamental shrubs and trees. Use of plant keys. One

lecture, one 2-hour lab. Prerequisite: an introductory botany course or consent of instructor. (b) As (a), but evergreen trees and shrubs, and herbaceous perennial plants will be considered. One lecture, one 2-hour lab. Prerequisite: 327A or equivalent.

328-4 (2, 2) Appreciation of Landscape Design. (a) Introduction to theory and principles of landscape design as applied to the modern home. Property selection and climate control. (b) Laboratory. Practical application in modern methods of property planning including the individual components of the completed landscape plan and selection of plants. Prerequisite: 327 or equivalent, and a course in drafting.

338-3 Flower Shop Management. Requirements for establishing and operating a retail flower shop. Business management, floral design, and marketing. Prerequisite: 228, a course in economics, or consent of instructor.

346-2 Soil and Water Conservation. How soil erosion occurs, evaluation of the various factors affecting it, its effects on Man, food production and pollution; and practical means of control. Prerequisite: a course in soils suggested.

347-1 Laboratory Practices in Soil and Water Conservation. Effects of soil properties and rainfall characteristics on erodibility of soils. Laboratory work in land surveying, relief mapping and a study of structures related to soil and water conservation.

359-1 to 6 Intern Program. Supervised work experience program in either an agricultural agency of the government or agri-business. Prerequisite: junior standing and approval of department. Mandatory Pass/Fail.

380-4 (2, 1, 1) Plant and Soil Evaluations. (a) Grain grading to include crop and weed identification and seed identification and analysis; (b) Comparative evaluation and judging of horticultural crops to include flowers, fruits, vegetables, woody ornamentals. Field trip costing approximately \$25. (c) Soil evaluation to include identification of genetic horizons, their physical characteristics and classification. Field trips (no cost). These courses are not required for participation in SIU judging team activities. Elective Pass/Fail.

381-1 to 2 (1, 1) Plant and Soil Science Seminar. Discussion of special topics and/or problems in the various areas of plant and soil science. Prerequisite: junior standing.

390-1 to 4 Special Studies in Plant and Soil Science. Assignments involving research and individual problems. Prerequisite: consent of department chairman.

391-1 to 4 Honors in Plant and Soil Science. Independent undergraduate research sufficiently important to three hours per week of productive effort for each credit hour. Prerequisite: junior standing, GPA of 3.0 with a 3.25 in the major, and consent of department chairman.

400-2 Trends in Agronomy. A discussion session format will be employed as a means of acquainting students with recent literature and allowing them to remain current with latest developments in their area of specialty. Prerequisite: senior standing.

405-3 Plant Breeding. Principles of plant breeding emphasized together with their application to the practical breeding of agronomic, horticultural, and forest plants. Field trip costs approximately \$5. Prerequisite: 305 or equivalent. Elective Pass/Fail.

408-3 World Crop Production Problems. Ecological and physiological factors influencing production in various areas of the world. Natural limitations on world crop production. Non-agricultural factors influence world crop output. Prerequisite: 200. Elective Pass/Fail.

409-3 Crop Physiology and Ecology. The effects and significance of physiological and ecological parameters on crop yields. Prerequisite: Botany 320 or consent of instructor.

419-3 Forage Crop Management. Forage crop production and utilization; forage crop characteristics, breeding, and ecology; grasslands as related to animal production, soil conservation, crop rotation, and land use. Field trip costs approximately \$5.00. Prerequisite: Botany 200 or one course in biology or equivalent.

420-4 Crop Pest Control. Study of field pests of forest, orchard, field, and garden crops; pest control principles and methods; control strategy; and consequences of pest control operations. Prerequisite: introductory biology or crop science course and/or consent of department.

422-3 Turfgrass Science. Basic concepts of physiology, growth, and nutrition of turfgrasses and their culture. Application of turfgrass science to management of special turf areas such as golf courses, athletic fields, and sod farms; and to the turfgrass industry. Field trips cost approximately \$15. Prerequisite: 240 and 322 or equivalent or consent of instructor.

423-3 Greenhouse Management. Principles of greenhouse management controlling environmental factors influencing plant growth; greenhouses and related structures; and greenhouse heating and cooling systems. Field trips costing approximately \$5. Prerequisite: 220 or consent of instructor.

424-3 Floriculture. Production, timing, and marketing of the major floricultural crops grown in the commercial greenhouse. Each student will have an assigned project. Field trip costing approximately \$25. Prerequisite: 423 or consent of instructor.

428-6 (3, 3) Advanced Landscape Design. Theory and principles of residential landscape design. Practice in drawing residential landscape plans. (a) Emphasis on arrangement of unit areas. (b) Emphasis on details of design and selection of plants. Prerequisite: 328-4 or consent of instructor.

- 430-4 Plant Propagation.** Fundamental principles of asexual and sexual propagation of horticultural plants. Actual work with seeds cuttings, grafts, and other methods of propagation. Field trip costing approximately \$5. Prerequisite: 220.
- 432-4 Nursery Management.** Principles and practices involved in the propagation, production, and marketing of ornamental landscape plant materials. Emphasis on plant production with field trips to various production areas costing approximately \$40. Prerequisite: 220 and 327a, or consent of instructor.
- 434-3 Woody Plant Maintenance.** Care and management of ornamental shrubs and trees commonly used in the landscape. Topics to include trimming, pruning, fertilization, transplanting, and diagnosis of woody plant problems. Prerequisite: 327 or Forestry 201 and 202 or consent of instructor.
- 436-4 Fruit Production.** Deciduous tree and small fruit growing, physiology, management practices, marketing. Prerequisite: 220 or consent of instructor.
- 437-4 Vegetable Production.** Culture, harvesting, and marketing of vegetables; with morphological and physiological factors as they influence the crops. Field trip costing approximately \$5. Prerequisite: 220 or consent of department.
- 441-3 Soil Morphology and Classification.** Development, characteristics, and identification of soils; study of profiles; and interpretation and utilization of soil survey information in land use planning. Field trip costing approximately \$5. Prerequisite: 240 or consent of instructor.
- 442-3 Soil Physics.** A study of the physical properties of soils with special emphasis on soil and water relationships, soil productivity, and methods of physical analysis. Prerequisite: 240.
- 443-3 Soil Management.** The soil as a substrate for plant growth. Properties of the soil important in supplying the necessary mineral nutrients, water and oxygen and for providing an environment conducive to plant root system elaboration. Soil management techniques that are important in optimizing plant growth. Prerequisite: 240. Elective Pass/Fail.
- 447-3 Fertilizers and Soil Fertility.** Recent trends in fertilizer use and the implications of soil fertility build up to sufficiency and/or toxicity levels; the behavior of fertilizer material in soils and factors important in ultimate plant uptake of the nutrients; the plant-essential elements in soils and ways of assessing their needs and additions; tailoring fertilizer for different uses and management systems; implication of excessive fertilization in our environment. Prerequisite: 240; concurrent enrollment in 448 suggested. Elective Pass/Fail.
- 448-2 Soil Fertility Evaluation.** A laboratory course design to acquaint one with practical soil testing and plant analysis methods useful in evaluating soil fertility and plant needs. One hour lecture, two hours laboratory. Prerequisite: 240; 447 or concurrent enrollment; or consent of instructor.
- 454-3 Microbial Processes in Soils.** A study of the numbers, characteristics, and biochemical activities of soil micro-organisms, with particular consideration of their role in the transformations of organic matter, nitrogen, and minerals as related to soil fertility and management. The role of soil organic matter in interacting with fertilizers, pesticides, and environmental waste products is included. Prerequisite: 240 or one course in microbiology. Elective Pass/Fail.
- 460-3 Radioisotopes, Principles and Practices.** Lectures on the principles of radioisotope technology as applied to agricultural and biological sciences. Prerequisite: general chemistry and biochemistry or equivalent.
- 468-3 Weeds—Their Control.** Losses due to weeds, weed identification and distribution, methods of weed dissemination and reproduction, mechanical, biological, and chemical control of weeds. State and Federal legislation pertaining to weed control herbicides. Herbicide commercialization. Field Trips costing approximately \$5. Prerequisite: an introductory biology course. Elective Pass/Fail.
- 518-3 Principles of Herbicide Action.**
- 520-3 Growth and Development of Plants.**
- 524-2 Advanced Plant Genetics.**
- 547-2 Soil-Plant Nutrient Relationships.**
- 560-3 Field Plot Technique.**
- 581-1 to 4 (1, 1, 1, 1) Seminar.**
- 588-1 to 8 International Graduate Studies.**
- 590-1 to 4 Readings.**
- 592-1 to 3 Special Problems.**
- 593-1 to 4 Individual Research.**
- 599-1 to 6 Thesis.**

Political Science (Department, Major, Courses)

The study of political science is concerned with predicting, explaining, and evaluating the political behavior, beliefs, laws, and organizational arrangements of people

in a variety of settings. A major in political science provides rigorous social science training. A variety of courses afford a student an opportunity to study, in depth, individual and group behavior, political, administrative, and judicial processes, comparative national and subnational governmental systems, intergovernmental relations and conflict resolution, and normative and empirical political theory. The student who is interested in the public sector will find discussions of such topics as voting behavior, American foreign policy, and the decisions and opinions of Supreme Court justices to be challenging experiences.

A major in political science provides excellent training for the public service, scientific polling and political analysis, management training programs, and teaching, particularly at the secondary level. A political science major also provides an excellent foundation for professional graduate training in law, journalism, public administration or public affairs, as well as for graduate work in political science which is essential for a career in higher education. For the non-vocationally oriented student, political science is an excellent major for anyone with a keen interest in politics and public affairs.

A student planning to major in political science should consult with the academic adviser of the department as early as possible in order to plan an orderly and coherent program. All members of the department are available for consultation on their academic specialties.

Students majoring in political science must take GSB 212. Political Science 200, 213, GSB 250, and GSB 270 are background courses for many advanced courses in the department. In fulfilling General Studies requirements or in choosing electives, political science majors should select courses from economics, psychology, sociology, anthropology, geography, and history. Mathematical or statistical training is highly recommended because of the trend toward empirical research and analysis in political science. Such training will also enhance vocational opportunities. Depending on special interest, a student should also consider courses in foreign languages or computer programming. Such courses are particularly important for the student who is planning to enter graduate school.

Qualified students are encouraged to inquire about individualized courses of study such as Political Science 390, 392, 395, and 494. The interested student should contact the academic adviser of the department or a member of the faculty.

At least seventeen hours in political science courses must be earned at senior level institutions.

Courses taken as Pass/Fail will not be counted as fulfilling the requirements for a major in Political Science.

Bachelor of Arts, College of Liberal Arts

<i>General Studies Requirements</i>	45
<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
<i>Requirements for Major in Political Science</i>	34

GSB 212, or equivalent

Additionally, political science electives, including 200 and 300 GSB courses offered by the department, to total 34 hours. Courses shall be distributed so that a minimum of one course is taken in 5 of the following 6 areas: scope, methods, and political theory; American politics; public law; public administration; comparative politics; and international relations. GSB 212 does not satisfy an area requirement. A minimum of three of the electives must be taken at the 400 level.

<i>Electives</i>	27-33
<i>Total</i>	120

Bachelor of Science Degree, College of Education

A major in political science for education requires 34 credit hours of work in the

department. This work must be distributed among the subfields of the discipline in the same manner as the 34-hour requirement described above for the Bachelor of Arts degree.

Every student enrolled in this program should seek regular advisement in the Department of Political Science to insure that department requirements will be fulfilled.

Students obtaining a Bachelor of Science degree in the College of Education must satisfy all requirements of that college. See Teacher Education Program, page 63. Professional education and other certification requirements may be found in the section of this catalog titled Curriculum, Instruction, and Media. A student enrolled in the teacher education program is required to have a 2.25 grade point average in political science in order to be recommended for student teaching by the department.

Minor

A minor in political science consists of 16 hours to be approved by the department adviser.¹

¹Students completing a minor in political science for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

Courses

The numbers preceding the following course titles have been designed to group courses by subject matter as well as level. A summary explaining the numbering system follows:

COURSE	LAST TWO DIGITS OF COURSE NUMBER
Scope, Methods, and Political Theory	00-09
American Politics	10-29
Public Law	30-39
Public Administration	40-49
Comparative Politics	50-69
International Relations	70-89
Miscellaneous	90-99

Courses

200-3 Introduction to the Discipline of Political Science: Scope. Examination of the philosophy, methodology, theories, approaches and relevant generalizations of the study of politics and of the scope and subfields of political science. Not open to seniors without instructor's consent. Elective Pass/Fail.

213-3 State and Local Government. Structure, functions, and decision-making processes of subnational governments in the United States. Prerequisite: GSB 212. Elective Pass/Fail.

214-3 Illinois Government. The politics, structure, and function of state and local governments in Illinois with stress upon the historical development of the political culture, current issues and events in the light of the historical background, and the interrelationship of politics, structure, and policy. Prerequisite: 213 or sophomore standing. Elective Pass/Fail.

300-3 Introduction to the Discipline of Political Science: Methods. An examination of the research methods and data analysis techniques used by political scientists in their analysis of political questions and problems. Prerequisite: None, 200 recommended. Elective Pass/Fail.

303-3 Introduction to Political Theory. Normative and testable theories in political science are introduced and interrelated. Guidelines for applying those theories to empirical and ethical problems are discussed. Prerequisite: 200 recommended. Elective Pass/Fail.

316-3 Political Socialization. (Same as Sociology 316.) An inquiry into interdisciplinary empirical theory and research on political learning relevant to (1) who (2) learns what (3) from whom (4) under what circumstances (5) with what effects. Prerequisite: 200 or GSB 212 or instructor's consent. Elective Pass/Fail.

317-3 Public Opinion and Electoral Behavior. The nature and function of public opinion as it is related to electoral behavior. Additional sociological and psychological bases of voting behavior will be studied. Prerequisite: None; 200 recommended. Elective Pass/Fail.

318-3 Political Campaigns and Elections. (Same as Speech Communication 318.)

Analysis of modern political campaigns and the role they play in a democracy. Emphasis will be on recent developments in the planning and execution of campaigns by mass media and communication specialists and the role of the political parties and the public opinion polls in this process. Prerequisite: GSB 212. Elective Pass/Fail.

319-3 Political Parties. Nature, structure, and functions of political parties, with particular attention to the roles and activities of political parties in the United States. Attention also given to voting behavior and elections. Prerequisite: GSB 212. Elective Pass/Fail.

320-3 Interest Groups in Politics. An analysis of interest groups and their techniques of political propaganda. Prerequisite: GSB 212. Elective Pass/Fail.

321-3 The Legislative Process. Review of theory and research on representation, demands, support, decision making, outcomes, and other aspects. Emphasis on United States Congress and state legislatures. Prerequisite: GSB 212. Elective Pass/Fail.

322-3 The American Chief Executive. The origin and background of the presidency and the governorship, qualifications, nomination and election, succession and removal, the organization of the executive branch, and the powers and functions of the president and governor. Prerequisite: GSB 212. Elective Pass/Fail.

324-3 Politics and Public Policy. The public policy-making process in the United States evaluated and a wide range of public policy programs analyzed. Prerequisite: GSB 212. Elective Pass/Fail.

325-3 Politics and Environmental Policy. Prompted by the conservation lobbies, United States and state legislatures moved to preserve the biosphere and to create a healthier human environment. The course will cover the traditional common law remedies to protect the citizen and his property from the hazards of pollution and his new broader constitutional and/or statutory right to a clean, healthy, and pleasant environment. Prerequisite: None; GSA/B 220 or GSA/B/C 221 or Political Science 340 recommended. Elective Pass/Fail.

328-3 Field Research in Public Policy. Students study public policy of their choice, individually or in teams, using field research techniques such as interviewing, direct observation, and inspection of public records. The policy studied is then evaluated in light of student-developed concepts of the public interest. Prerequisite: GSB 212. Elective Pass/Fail.

330-3 Introduction to the Legal Process. The legal process in operation, including basic procedural elements, and a sampling of the law of manufacturing liability, contract law, and labor law. Recommended for pre-law. Prerequisite: GSB 212. Elective Pass/Fail.

331-3 Development of the American Constitution. An analysis of the origins and evolution of the Constitution from the Colonial Period to the present. Prerequisite: GSB 212. Elective Pass/Fail.

332-3 Law and Civil Liberties. (Same as Black American Studies 345.) The law protecting the civil liberties and rights of people. Prerequisite: GSB 212 recommended. Not open to students who have taken Political Science 433b. Elective Pass/Fail.

334-3 Administration of Justice. The organization and work of the American judicial system. Recommended for pre-law students. Prerequisite: GSB 212. Elective Pass/Fail.

340-3 Introduction to Public Administration. An introduction to the study of public bureaucracy. Theoretical, political, and practical issues of organization, staffing, financing, and other matters are surveyed. United States administration and organizational behavior are stressed. Prerequisite: GSB 212. Elective Pass/Fail.

352-3 Politics of Developing Areas. A survey, theoretical and descriptive, of the impact upon politics of the process of development, and the role of the governmental system in the direction and control of development. Prerequisite: none; GSB 250 recommended. Elective Pass/Fail.

353-3 Comparative Communist Systems. General introduction to the political systems of communist states with special emphasis on Eastern Europe. Attention given to the role of ideology, the character and role of the party, and major decision making structures and processes. Elective Pass/Fail.

366-3 Introduction to Latin American Government and Politics. A general introduction to Latin American government as the institutionalized political expression of Latin American civilization and culture. Does not require a reading knowledge of Spanish or Portuguese. Elective Pass/Fail.

373-3 International Organization. Development and organization of international government and administrative systems, with emphasis on the United Nations. Prerequisite: none; GSB 270 recommended. Elective Pass/Fail.

382-3 The New Politics of Europe. International politics of Europe. Comparative analysis of the foreign policies of the major states. Topics studied include nationalism, unification, and security, western Europe's relations with the developing world, Eastern Europe, the USSR, and the U.S. Elective Pass/Fail.

383-3 International Relations of Communist States. History and analysis of the foreign policies principally of the Soviet Union and China, with some attention to Eastern Europe, North Korea, North Vietnam, and Cuba. Prerequisite: 353 or GSB 250 or consent of instructor. Elective Pass/Fail.

390-1 to 6 Readings in Political Science. In-depth, introductory and advanced readings in areas not currently covered in other political science courses. Student must choose a faculty

member to direct reading and must obtain consent prior to registration. Name of faculty member must be filed with the undergraduate adviser of the department at registration. Prerequisite: consent of instructor prior to registration.

392-1 to 6 Honors Seminar in Political Science. Honors. Significant topics chosen for discussion by students and instructor. Prerequisite: President's Scholar and junior standing, or a 3.0 cumulative GPA, or consent of instructor.

395-1 to 6 Internship in Public Affairs. Supervised field work in the office of a governmental agency, political party, interest group, legal agency, or other public affairs-oriented organization. A faculty-supervised paper is required in which the student relates the academic and internship experiences. Students must choose a faculty member to direct internship and obtain consent prior to registration. Name of faculty member must be filed with undergraduate adviser of the department at registration. This course is open only to students registered in the College of Liberal Arts or the College of Education. Students must be confirmed political science majors or minors who have taken at least two courses in the department with a minimum grade point average of 2.5. Students cannot register for more than six hours of credit in 395. A written description identifying the specific organization, the projected tasks, and responsibilities of the intern should be prepared prior to meeting with the faculty sponsor.

403-4 Philosophy of Politics. (See Philosophy 441.) Elective Pass/Fail.

404-6 (3, 3) History of Political Theory. (a) Ancient and Medieval theory, Plato to Thomas Aquinas; (b) Renaissance and Rationalist theory. Machiavelli to Edmund Burke. Prerequisite: 303 or consent of instructor. Elective Pass/Fail.

405-3 Democratic Theory. An examination of various species and aspects of democratic thought, including the liberal tradition and its impact upon the United States. Prerequisite: GSB 212 or consent of instructor. Elective Pass/Fail.

406-3 Socialist Thought. An examination of socialist thought regarding social structure, economic institutions, and political power. Prerequisite: senior or graduate standing or consent of instructor. Elective Pass/Fail.

413-3 Modern Federalism. The structure and function of federal systems of government with emphasis on recent revisions in American federalism and comparison of the American federal structure with federalism in other nations. Elective Pass/Fail.

414-3 Political Systems of the American States. The state level of government viewed with emphasis upon recent developments and current research. Prerequisite: 213. Elective Pass/Fail.

415-3 Urban Politics. An examination of the environment, institutions, processes, and functions of government in an urban society with particular emphasis on current problems of social control and the provision of services in the cities of the U.S. Prerequisite: 213. Elective Pass/Fail.

416-3 Senior Seminar in Political Behavior. Seminar for advanced undergraduate students to examine in depth such topics as political participation and influence (mass and elite), political conflict, political socialization and recruitment, political leadership. Graduate students not admitted. Prerequisite: 200 recommended. Elective Pass/Fail.

417-3 Political Psychology. An examination of various psychological theories as they relate to the development and change of political attitudes, leadership behavior, and mass political participation. Prerequisite: 200 recommended. Elective Pass/Fail.

418-3 Political Communications. (See Speech Communication 451.) Elective Pass/Fail.

419-4 Political Sociology. (See Sociology 475.)

426-3 Politics of Social Welfare. The Social Security Act and other legislation of major significance for the welfare and maintenance of the family, the handicapped, children, and other special groups. Their relationship to the legal structure of federal, state, county, township, and municipal welfare facilities and institutions with indications of economic and social consequences. Elective Pass/Fail.

427-3 The Politics of National Defense. A comparative study of the political effects of arms developments and arms control, the use and influence of military force in modern society and the factors leading to national aggression and non-aggression. Elective Pass/Fail.

428-3 Government and Labor. (See Economics 436.) Elective Pass/Fail.

429-3 Race, Ethnicity and Politics. (Same as Black American Studies 445.) An analysis of race and ethnicity as significant variables in political life. Topics receiving attention include various forms of political participation, leadership behaviors, organizational development, political strategies, and the effect of law in producing social change. Comparative cross-national emphases will vary with the instructor. Prerequisite: GSB 212. Elective Pass/Fail.

433-8 (4, 4) Constitutional Law. (a) This, the initial course in a two-course sequence, will be concerned with the basic structure and power relationships in the American constitutional system and, in addition, will cover the 19th and early 20th century bulwarks of constitutional *laissez faire*, the contract clause and "substantive" due process. In brief, the course will cover judicial review, judicial restraint, separation of powers, the federal system, national powers, state powers, constitutional amendments, and restraints on economic powers, the contract

clause and "substantive" due process. Prerequisite: GSB 212. Political Science 330 is recommended. Elective Pass/Fail. (b) This is the second course in the constitutional law sequence. The course will be wholly concerned with those provisions of the Constitution which protect individual rights and liberties against governmental encroachment. In brief, the course will cover constitutional provisions and case precedents relating to citizenship, freedom of speech, assembly, and association, freedom of religion, rights of persons accused of crime, protection against racial, ethnic, and other forms of discrimination, legislative apportionment and the electoral process. Prerequisite: GSB 212. Political Science 433a is highly recommended. Students who plan to take this course should not take Political Science 332. Elective Pass/Fail.

435-3 Judicial Process. An examination of the process by which judges in both trial and appellate courts at federal and state levels are selected and of the ways in which they make decisions. Attention to the structure of the courts. Study of the communication and impact of judicial decisions. Prerequisite: either 330, 332, 433, or consent of instructor. Elective Pass/Fail.

436-3 Administrative Law. The procedural law of public agencies, particularly the regulatory commissions but also executive branch agencies exercising regulatory functions. The exercise of discretion and its control through internal mechanisms and judicial review. Prerequisite: an ability to read court cases; 340 also preferred. Elective Pass/Fail.

437-3 Jurisprudence (Theories of Law). Major schools in legal thinking. Positive law and natural law. Idea of justice and concept of natural rights. Elective Pass/Fail.

441-3 Organization Theory. Analysis of various approaches to organizational theory and public administration with emphasis on recent American literature in this field. Prerequisite: 340 or consent of instructor. Elective Pass/Fail.

442-3 Public Personnel Administration. An analysis of some of the central problems encountered by the government executive in recruiting, maintaining, and developing personnel, such as political neutrality, leadership and motivation, career development, security regulations, and the role of personnel in policy planning and execution. Prerequisite: 340. Elective Pass/Fail.

443-3 Public Financial Administration. An examination of the administrative problems connected with local and state revenues and expenditures in the United States. Prerequisite: 213. Elective Pass/Fail.

444-3 Policy Analysis. An examination of basic concepts in the policy sciences, approaches to policy analysis, applications to selected areas of policy, and instruments of policy development. Elective Pass/Fail.

447-6 to 9 (3, 1 or 2, 2 to 4) Urban Planning. (See Geography 470a, b, c.) Elective Pass/Fail.

454-3 Comparative Urban Politics. Comparative analysis of urban political systems in the United States and other nations. Attention to the social environment, political structures, political processes, and public policies of selected urban areas. Prerequisite: none. 213 recommended. Elective Pass/Fail.

455-3 Comparative Public Administration. Administrative attitudes, behaviors, and institutions are compared on a topical basis in governments of Britain, Europe, the United States, Japan, and selected socialist, developing, and ancient states. Elective Pass/Fail.

457-3 Great Britain and the Commonwealth. The nature of the Commonwealth Association and the politics of Great Britain and the "Old Commonwealth" countries: Australia, Canada, New Zealand. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

458-3 Governments and politics of Europe. A comparative study of the political systems of the major countries of Western and Central Europe. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

459-3 Government and Politics of Soviet Russia. Dynamics of Soviet government and economy. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

460-3 Governments and Politics of South Asia. Politics in India, Pakistan, Ceylon, Nepal. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

461-3 Governments and Politics of Southeast Asia. Politics and governments of Burma, Thailand, Malaysia, North Vietnam, South Vietnam, Cambodia, Laos, Singapore, Indonesia, and the Philippines. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

462-3 Governments and Politics of Vietnam. Development of nationalist and communist political groupings since the period of French domination. Role of the religious sects and the private armies. Analysis of the legal and political system of Vietnam. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

463-3 Government and Politics of China. Internal political, economic, and social development of China. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

464-3 Governments and Politics in the Middle East. The Arab states of the Middle East and Israel. Socialization and integration patterns, the traditional and revolutionary regimes, and regional cooperation and conflict. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

465-3 Government and Politics of Sub-Saharan Africa. (Same as Black American Studies 465.) Government and politics of French, English, and Portuguese-speaking areas of

sub-Saharan Africa, with particular reference to the decolonization process and the relations of African states with each other and with non-African countries. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

466-4 Governments and Politics of Latin America. An in-depth analysis of specific problem areas in Latin American Political processes as well as comparative study of selected Latin American nation-states. Prerequisite: none. 366 recommended. Elective Pass/Fail.

467-3 Advanced Comparative Politics. Analysis of the comparative approach to the study of politics and the principal methods employed in this approach. Methodological and conceptual issues are presented in conjunction with basic political structures and processes. Prerequisite: GSB 250 or consent of instructor. Elective Pass/Fail.

471-3 Theories of International Relations. Systematic analysis of a variety of approaches which seek to explain the actions of nations. The realist and utopian traditions, ecological factors, decision-making processes, theories of conflict and integration, equilibrium and systems analysis will be covered among others. Prerequisite: GSB 270 or graduate standing. Elective Pass/Fail.

475-6 (3, 3) International Law. (a) Rules and practices governing the nations in their relations in peace and war. Prerequisite: none. GSB 270 recommended. (b) Investigation of special problems in international law. Prerequisite: 475a. Elective Pass/Fail.

477-3 The Making of American Foreign Policy. An advanced course dealing with the formulation and administration of American foreign policy. Prerequisite: none. GSB 378 recommended. Elective Pass/Fail.

480-3 International Politics. Definition and analysis of the concepts of spheres of hegemony, alliances, regionalism, integration, interdependence, and an evaluation of their application to contemporary international politics. The course will stress the need for the continuing evaluation of the vague role of national power and influence within the framework of a changing world environment. Elective Pass/Fail.

485-3 International Relations of the Far East. The political and strategic problems and the interplay of the foreign policies of the major powers in this area. Prerequisite: none. GSB 270 or History 380 recommended. Elective Pass/Fail.

487-3 International Relations of the Middle East. Role of Middle Eastern countries in world affairs, international implications of Middle East conflicts, and strategic involvement of the U.S., Soviet Union, and other countries in the area. Prerequisite: none. GSB 270 recommended. Elective Pass/Fail.

488-3 International Relations of the Western Hemisphere. Emphasis on the international behavior of Latin American nation-states and/or regions especially related to policy trends and historical and contemporary objectives of the U.S. Prerequisite: none. GSB 270 recommended. Elective Pass/Fail.

494-1 to 6 Honors Research. Directed research for senior government honors students. Not for graduate students. Prerequisite: consent of instructor and chairman. Student must have at least a *B* average in political science.

500-2 Research Methods—Introduction.

501-3 to 9 (3 per topic) Research Methods.

502-3 to 6 Topical Seminar in Research Methods.

503-3 Data Preparation and Management.

505-3 to 6 (3, 3) Topical Seminar in Normative Theory.

508-3 to 6 (3, 3) Topical Seminar in Empirical Theory.

510-3 Proseminar in American Politics.

511-3 to 6 (3, 3) Topical Seminar in American Politics.

514-3 Seminar in American State Politics.

515-3 Seminar in Urban Politics.

516-3 to 6 (3, 3) Seminar in Political Behavior.

518-3 Seminar in Political Parties.

521-3 Seminar in the Legislative Process.

538-3 Seminar in the Judicial Process

540-2 Advanced Public Administration.

542-3 Planning and Budgeting Systems.

544-3 Advanced Policy Analysis.

547-6 (3, 3) Topical Seminar in Public Administration.

568-3 Seminar in Comparative Analysis.

569-3 to 6 (3, 3) Topical Seminar in Comparative Politics.

573-3 Seminar in International Organization.

575-3 Seminar in International Law.

577-3 to 6 (3, 3) Topical Seminar in Foreign Policy.

580-3 to 6 (3, 3) Topical Seminar in International Relations.

590-1 to 6 Readings.

591-1 to 6 Individual Research.

593-2 Seminar on Teaching Political Science.

595-1 to 6 Internship in Public Affairs.

599-1 to 6 Thesis.

600-1 to 36 (1 to 16 per semester) Dissertation.

President's Scholars (Courses)

Courses

111-1 Freshman Honors Colloquium. Open to freshmen. Prerequisite: consent of the President's Scholar Program.

201-1 to 9 Honors Seminar. Undergraduate honors seminar. Topics vary and will be announced by the President's Scholar Program each time the course is offered. Prerequisite: consent of the President's Scholar Program.

251a-1 to 8 Honors Seminar in the Sciences. Seminars in the area of the natural sciences intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area A. Prerequisite: consent of the President's Scholar Program.

251b-1 to 8 Honors Seminar in the Social Sciences. Seminars in the area of the social sciences intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area B. Prerequisite: consent of the President's Scholar Program.

251c-1 to 8 Honors Seminar in the Humanities. Seminars in the area of the humanities intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area C. Prerequisite: consent of the President's Scholar Program.

251d-1 to 6 Honors Seminar in Language or Mathematics. Seminars in the area of the organization and communication of ideas, intended primarily for freshmen. These seminars may be used to satisfy a part of the requirement for General Studies Area D. Prerequisite: consent of the President's Scholar Program.

251e-1 to 4 Honors Seminar in Health and Physical Education. Seminars in the area of health and physical education, intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area E. Prerequisite: consent of the President's Scholar Program.

299-1 to 15 Honors Project. Preparation of honors paper or comparable project under joint supervision of President's Scholar Program and a faculty member of subject-matter department. Intended primarily for freshmen and sophomores. Prerequisite: consent of the President's Scholar Program.

301-1 to 9 Honors Seminar. Undergraduate honors seminar. Topics vary and will be announced by the President's Scholar Program each time the course is offered. Prerequisite: consent of the President's Scholar Program.

351a-1 to 9 Honors Seminar in the Sciences. Seminars in the area of the natural sciences. These seminars may be used to satisfy the requirement for General Studies Area A. Prerequisite: consent of the President's Scholar Program.

351b-1 to 9 Honors Seminar in the Social Sciences. Seminars in the area of the social sciences. These seminars may be used to satisfy the requirement for General Studies Area B. Prerequisite: consent of the President's Scholar Program.

351c-1 to 9 Honors Seminar in the Humanities. Seminars in the area of the humanities. These seminars may be used to satisfy the requirement for General Studies Area C. Prerequisite: consent of the President's Scholar Program.

351d-1 to 6 Honors Seminar in Language or Mathematics. Seminars in the area of the organization and communication of ideas. These seminars may be used to satisfy a part of the requirement for General Studies Area D. Prerequisite: consent of the President's Scholar Program.

351e-1 to 4 Honors Seminar in Health and Physical Education. Seminars in the area of health and physical education. These seminars may be used to satisfy the requirement for General Studies Area E. Prerequisite: consent of the President's Scholar Program.

399-1 to 15 Honors Project. Preparation of honors paper or comparable project under joint supervision of President's Scholar Program and a faculty member of a subject-matter department. Prerequisite: consent of President's Scholar Program.

499-3 to 9 Undergraduate Honors Thesis. Preparation of honors thesis under supervision of a committee consisting of one or more faculty members in appropriate disciplines and a representative of the President's Scholar Program. Prerequisite: consent of department and of President's Scholar Program.

Professional Education Experiences (Office)

Student Teaching

Student teaching, together with the seminar in professional education, constitutes a full professional commitment on the part of the student and is a full professional semester of experience in the field carrying 15 hours of credit. Additional course

work may be taken only on an overload basis with special permission from the coordinator of professional education experiences.

The student teacher must follow the same daily schedule as the cooperating teacher with whom the student is placed. This means that the student teacher remains in the school for the entire day, as well as participating in whatever extra-curricular activities might be the responsibility of the cooperating teacher.

Students majoring in elementary education will be assigned to work with a cooperating teacher in one of the elementary grades, one through six, in an affiliated school. Students majoring in early childhood education will be assigned to work with a cooperating teacher in a kindergarten or primary grade, one through three, in an affiliated school.

The student who majors in a secondary school subject field which has an approved program in the teacher education program will be assigned to work with a cooperating teacher in a secondary school, grades seven through twelve, whose teaching assignment is consistent with the student's teaching major.

Special education majors will be assigned to work with a cooperating teacher in the appropriate special area: mental retardation, behavioral disorders, or learning disabilities. Students majoring in speech pathology and audiology will be assigned to a cooperating teacher who is a speech clinician in an affiliated school.

Students wishing to enroll in the professional semester during the fall or spring semester of the academic year must file an application with the office of professional education experiences, Wham Building, Room 135, at least one semester in advance of the semester during which they wish an assignment. The professional semester program during the summer session is restricted to those individuals who hold either a provisional teaching certificate or a teaching certificate in a field other than the one for which they are seeking certification. Participation in this program is also dependent upon the availability of suitable placements in the summer school programs of participating public schools.

Applications for both regular academic year and special summer participation are available in the office of professional education experiences, Wham Building, Room 135.

The student must register for the professional semester following normal registration procedures. Registration will include the following courses: Education 400, 4 hours, Education 401, 8 hours, and Education 350, 3 hours. Students will register for the sections of these courses designated for their majors. Registration during the summer session is by restricted class card for Education 300A, 5-8 hours.

PLACEMENT OF STUDENT TEACHERS

Student teaching under the supervision of Southern Illinois University at Carbondale faculty is conducted in affiliated schools in the southern Illinois area as well as several locations throughout the state. A current listing of specific schools is available in the office of professional education experiences.

Insofar as numerical limits will permit, students will be assigned to the location of their choice. However, if the limits have been met, students are advised that they may be assigned to any of the centers which can suitably accommodate them.

Students are advised to make no binding housing commitments during the professional semester until they have received verification of their student teaching assignments. Such housing commitments will not be considered when students are assigned.

PROFESSIONAL SEMESTER (STUDENT TEACHING) PREREQUISITES

1. Students must have achieved formal acceptance into the teacher education program and must present their records of acceptance when applying for the professional semester.
2. The student is responsible for having all transcripts of credit earned at

colleges or universities other than Southern Illinois University at Carbondale on file in the office of the coordinator of Professional Education Experiences. These must be on file by the tenth day of the semester for which the student is applying.

- 3. Prior to the professional semester, the intern must have completed a minimum of 20 semester hours in the subject he proposes to teach. The course work involved must meet the approval of the department chairman of that major department. (Course work and/or performance required may be obtained from the department concerned.) An up-to-date list of approved majors in the teacher education program may be found in the booklet, *The Teacher Education Program*, or requested from the office of Professional Education Experiences.
- 4. The student must have completed 75 semester hours of credit with a minimum cumulative average of 2.25 before beginning work in student teaching.
- 5. Each of those courses which are a part of the professional education sequence prior to the professional semester must have been completed with a grade of C or better. (Education 301, 302, 303, and 304.)
- 6. The student must have completed GSD 101 and GSD 117, 118, or 119, and one additional English course (GSC, GSD, or English department) with a grade of C or better in each of the last two courses completed. The student eligible by ACT (90th percentile or higher) or CLEP scores (480 or above) to take the proficiency examination in English composition may satisfy this requirement with proficiency credit in GSD 101 and GSD 117 and at least a C in English 290.
- 7. Every student teacher must have a health clearance from the University Health Service. The health clearance consists of a tuberculin test. If it is not convenient to come to the health service in Carbondale, students may have a tuberculin test by their own medical doctors. A record of the health clearance must be on file in the office of Professional Education Experiences by the tenth day of the semester immediately preceding the student's professional semester.
- 8. The student must have established at least one semester of residence at Southern Illinois University at Carbondale, earning a minimum of 12 semester hours of credit, prior to any professional semester assignment.

Field Experiences Other Than the Professional Semester

Other field experiences for students in the teacher education program are provided in Education 302 and Education 312. Applications for these courses are available in the office of professional education experiences.

Psychology (Department, Major, Courses)

The undergraduate major in psychology is primarily aimed at providing broad general education rather than specialized professional training in psychology. To become a professional psychologist usually requires the completion of two to four or more years of postgraduate study.

Students planning to complete a major in psychology must formally declare their intention with the supervisor of the undergraduate curriculum in the Department of Psychology, Room 229, Life Science II. The declaration should be made as early as possible.

Bachelor of Arts Degree, College of Liberal Arts

<i>Supplementary College Requirements</i> (See page 70.)	(4) + 8-14
<i>Requirements for Major in Psychology</i>	28-30
GSB 202	(3)
Mathematics 139	(3)
Psychology 211	4
Psychology electives: (8 courses) The electives must be distributed so at least three courses are chosen from Group A and three from Group B. At least one course must be chosen from 311, 312, 314, 315, 316. At least two of the selections must be at the 400 level.	
Group A: 301, 303, 304, 305, 307, 316, 320, 322, 323, 330, 333, 421, 431, 432, 440, 451, 459, 461	
Group B: 309, 310, 311, 312, 314, 315, 404, 407, 409, 411, 415, GSA 302	
Psychology 391, 392, 394, 399, 489, and any of those in the above two groups may be used to satisfy the remaining two nondistributed electives. Refer to course descriptions for limitations.	
Psychology 101, 106a, b, and 289 may not be used to satisfy major requirements	24-26
<i>Electives</i>	31-39
<i>Total</i>	120

Minor

A minor in psychology consists of 15 hours (a minimum of five courses) of psychology courses from those acceptable for the major.¹

¹Students completing a minor in psychology for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

Senior Honors Program

A small number of students are selected each year for the honors program. Selection criteria are promising academic performance (3.0 overall grade point average and 3.25 psychology grade point average minimum), expressed interest, recommendation by departmental adviser, and capacity of program to take new students. Emphasis is on small seminar and individual research work by the student.

Courses

101-3 Developing Effective Relationships. The process of group encounter is used to help students achieve a better understanding of themselves and others. Selected readings in interpersonal encounter supplement the experiential laboratory.

106-8 (4, 4) Drug Abuse and the Helping Relationship. A two-course sequence on drug-related problems and developing potential as a helping agent. (a) Examination of drug information, experience with small groups, communication, and helping skills. (b) Further development of skills; small group and student-designed action projects. Must be taken in a,b sequence. Prerequisite: consent of instructor. Mandatory Pass/Fail.

211-4 Research Methods in Psychology. An introduction to the application of scientific methods to the study of behavior. Experimental design and methodology and correlational procedures are considered. Considerations of data analysis and interpretations are integrated with the treatment of design and methodology. Lecture and laboratory. Prerequisite: GSB 202.

289-1 to 12 Undergraduate Seminar: Selected Topics. Varied content. Offered as need exists and as faculty interests and time permit. Prerequisite: consent of instructor.

301-3 Child Psychology. The biological and psychological development of the child from birth through puberty, and relevant research methods and results. Prerequisite: GSB 202. Elective Pass/Fail.

303-3 Adolescent Psychology. Examines the physical and psychological development of the adolescent, and the relevance of childhood development to adolescent problems. Prerequisite: GSB 202. Elective Pass/Fail.

304-3 Psychology of Maturity and Old Age. A consideration of psychological factors in later maturity and old age, and their concomitant problems, both individual and social. Prerequisite: GSB 202. Elective Pass/Fail.

305-3 Psychology of Personality. The inferred patterns underlying an individual's

unique reactions to his environment. Investigates the motivation, development, and methods of changing these patterns, and how personality processes are studied. Prerequisite: GSB 202. Elective Pass/Fail.

307-3 Social Psychology. Introduction to the area of social psychology. Considers methodology, person perception, interpersonal attraction, attitude formation and change, social influence, group processes, intergroup conflict, and other contemporary issues in social psychology. Prerequisite: GSB 202. Elective Pass/Fail.

309-3 Psychology of Learning. Principles and laws of learning as derived from the classical and instrumental learning literature—acquisition, extinction, punishment, persistence, generalization, discrimination, motivation, drives, and incentives. Prerequisite: 211.

310-3 Cognitive Psychology. A survey of theory and research on attention, memory, language behavior, and problem solving. The principal orientation will be the information processing approach to the study of behavior. Prerequisite: GSB 202.

311-3 Experimental Psychology: Learning. Investigates the processes governing behavioral change covered in 309. Experimental studies of conditioning, memory, and forgetting will be emphasized. Laboratory work will include the design and conduct of experiments with humans and/or animals. Prerequisite: 309.

312-4 Experimental Psychology: Perception. Investigates the variables influencing an organism's stimulation by his environment. The structure and operation of the sense organs as well as complex perceptual phenomena are examined in lectures and laboratory. Prerequisite: 211.

314-3 Experimental Physiological Psychology. A survey through readings and laboratory exercises, of selected topics in physiological psychology. The biological bases of sexual behavior, motivation, and memory are emphasized. Prerequisite: GSA 302, Psychology 211.

315-3 Experimental Psychology: Cognitive Processes. The student conducts three or four experiments in cognitive psychology. The first experiments are described in detail by the instructor; the final experiment is one of the student's own design. Prerequisite: 211, 310.

316-3 Experimental Psychology: Social. A laboratory and lecture course designed to familiarize the student with basic research methodology in experimental social psychology. Prerequisite: 211, 307.

320-3 Industrial Psychology. A study of the use of psychological methods in the analysis of human factors problems in business and industry. Prerequisite: GSB 202. Elective Pass/Fail.

322-3 Personnel Psychology. Covers the use of psychological methods in the analysis of jobs and in the selection, placement, and evaluation of personnel in business and industry. Prerequisite: GSB 202. Elective Pass/Fail.

323-3 Psychology of Employee Relations. Job satisfaction and morale, psychological aspects of labor relations, interviewing methods, and human relations training. Prerequisite: GSB 202. Elective Pass/Fail.

330-4 Psychology Applied to Personal Adjustment. Review of psychological methods potentially useful in self-improvement. Training and practice in learning to use various learning procedures with typical problems in everyday living. Effectiveness assessed and discussed in small groups or confidentially with instructor. Prerequisite: six hours of psychology or consent of instructor.

333-3 Psychology of Women. An examination of empirical evidence on the biological, psychological, and social functioning of women, describing women's roles, the genetic versus social determinants of women's behavior, and the implications for women's potential. Prerequisite: GSB 202 or consent of instructor. Elective Pass/Fail.

391-1 to 12 Individual Study. Independent study under the supervision of a member of the psychology faculty. (A maximum of three hours of 391 or 392 may count toward the major.) Prerequisite: consent of instructor. Mandatory Pass/Fail.

392-1 to 12 Individual Study. Independent study under the supervision of a member of the psychology faculty. For use in those cases where the faculty member deems a graded course to be appropriate. (A maximum of three hours of 391 or 392 may count toward the major.) Prerequisite: consent of instructor.

394-1 to 9 Undergraduate Practicum in the College Teaching of Psychology. Supervised practicum in the college teaching of psychology for selected senior psychology majors. (A maximum of three hours may count toward the major.) Prerequisite: senior psychology major and permission of instructor.

399-1 to 9 Research and Investigation: Honors. Intensive study in selected areas for students qualified for honors work in psychology. A research paper or equivalent will be required. Prerequisite: consent of chairman.

404-3 Theories of Perception. An examination of the different theories concerned with an organism's sensory contact with his environment. Physiological, social, and organizational theories of perception will be considered. Prerequisite: 211 or consent of instructor.

407-3 Theoretical Issues in Learning. An introduction to the major theoretical issues in learning and their importance. A brief review of the history of such problems will be followed by a summary of the current research concerning these issues. Traditional figures in learning

theory will be considered within the context of their positions on specific questions. Prerequisite: 309 or equivalent.

409-3 History and Systems of Psychology. A review of the conceptual and empirical antecedents of modern psychology. Prerequisite: senior status.

411-3 Principles of Training. An in-depth coverage of practical problems concerned with training to which the principles of learning derived from pure laboratory investigations can be applied. Prerequisite: 309.

415-4 Psychopharmacology. A survey of the effects of drugs on the normal and abnormal behavior of humans and animals. A primary focus is upon understanding drug influences on behavior in relation to actions on the nervous and endocrine systems. Prerequisite: GSA 302, GSB 202. Elective Pass/Fail.

421-3 Psychological Tests and Measurements. Introduction to test theory and test development. Detailed coverage of selected tests from such areas as intelligence, aptitude, and personality. Prerequisite: six hours of psychology.

431-3 Psychopathology. Classification, description, etiology, and treatment of the disorders of personality organization and behavioral integration. Observations in a state mental hospital setting. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.

432-3 Psychopathology of Childhood. An extensive review and systematic evaluation of theories and research pertaining to the behavior disorders of childhood. Emphasis will be upon empirical data and the implications of these data for the classification and treatment of these disorders. Prerequisite: 301, and 211 or Guidance and Educational Psychology 422.

440-3 Theories of Personality. A review and evaluation of major personality theories and their supporting evidence. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.

451-3 Advanced Child Psychology. An assessment of concepts, methods, and research techniques within selected topic areas of developmental psychology. Prerequisite: 211 and 301, or consent of instructor.

459-3 Theory and Practice in the Preschool. Designed for those interested in the education of the preschool-aged child. Examines a variety of topics and provides lectures, demonstration, and practicum experience in the Child Study Cooperative Nursery. Prerequisite: consent of instructor.

461-3 Advanced Social Psychology. Examines in depth current research in experimental social psychology. Emphasis is placed on topics such as person perception, interpersonal attraction, attitude formation and change, social influence, group processes, intergroup conflicts. Not for psychology graduate students. Prerequisite: 211, 307.

489-1 to 12 Seminar: Selected Topics. Varied content. Offered as need exists and as faculty interests and time permit. Prerequisite: consent of instructor.

509-3 Motivation and Reinforcement in Learning.

510-3 Stimulus Control of Behavior.

511-3 Human Learning and Memory.

512-4 Sensory Processes.

513-3 Human Psychophysiology.

514-4 Physiological Psychology.

515-3 Theory and Research in Cognitive Psychology.

522-11 (4, 4, 3) Experimental Design and Analysis.

523-2 Research Methods in Clinical and Counseling Psychology.

524-3 Multivariate Methods in Psychology.

525-3 Mental Test Theory.

527-3 Theory and Methods of Scaling.

530-6 (3, 3) Systems of Personality and Psychotherapy.

531-3 to 6 Community and Institutional Field Placement.

532-2 Experimental Approaches to Personality.

533-2 Experimental Approaches to Psychopathology.

534-3 Behavior Therapy.

535-3 Psychopathology.

538-3 Theory and Practice of Group Facilitation.

539-3 Experimental Approaches to Psychotherapy.

540-3 Psychological Assessment.

542-3 Principles and Problems in Personality Assessment.

547-3 Appraisal in Counseling.

548-3 Vocational Psychology and Career Development.

551-3 Advanced Developmental Psychology I.

552-3 Advanced Developmental Psychology II.

554-3 Developmental Theories.

555-3 Language and Cognition.

556-2 Psychological Treatment of the Child.

557-2 Family Psychotherapy.

560-3 Social Psychology Proseminar.

564-3 Evaluations of Social Interventions: Experimental and Quasi-Experimental Approaches.

576-3 Human Engineering.
585-1 to 18 Advanced Seminar.
590-1 to 12 Readings in Psychology.
593-1 to 24 Research in Psychology.
594-1 to 16 Practicum in Psychology.
595-1 to 12 Internship.
597-1 to 15 Preprofessional Training.
598-3 Ethical and Professional Problems in Psychology.
599-1 to 6 Thesis.
600-1 to 24 Dissertation.

Public Visual Communications (Major [Graduate only], Courses)

The graduate faculty in public visual communications, consisting of members of the Departments of Cinema and Photography and Radio-Television of the College of Communications and Fine Arts, offers graduate work leading to the Master of Arts degree. The public visual communications program has as its objective the development of visual media personnel to serve the communicative needs of society and to prepare interested graduates for doctoral study. The program has been structured with flexibility so as to serve holders of baccalaureate degrees in cinema and photography and radio-television as well as those who hold degrees in other disciplines. For a more complete description of the program, refer to the Graduate Catalog.

Courses

500-3 Introduction to Public Visual Communications.
510-3 Researching and Developing Public Telecommunications Programming.
530-3 International Telecommunications.
531-3 Seminar: Photographic Communication.
532-3 Audience Communications Research.
541-6 (3, 3) Seminar: History of Photography.
542-6 (3, 3) Seminar in Film History.
570-3 Public Telecommunications Program Analysis and Criticism.
571-3 Regulation and Control of Public Communications.
572-4 (2, 2) Management of the Photographic Unit.
573-3 Public Telecommunications Management.
574-3 Contemporary Film Theory.
580-2 Seminar: Current Trends in Public Telecommunications.
589-3 Seminar: Public Communications in a Dynamic Society.
591-1 to 6 (1 to 3, 1 to 3) Individual Study in Public Visual Communications.
597-2 to 6 Production Seminar: Cinema, Photography, and Television.
599-3 to 6 Thesis.

Radio-Television (Department, Major, Courses)

The Department of Radio-Television prepares students for responsibility as professional broadcasters and as conscientious citizens by combining practical and theoretical courses in broadcasting with the broad background needed to function appropriately in our society. Within an interdisciplinary approach, the Department of Radio-Television studies the public interest while affording work in all aspects of the broadcast media, except the purely technical. The curriculum does not cover broadcast engineering. In addition to classroom instruction, the department is very closely interrelated with the SIU Broadcasting Service, which operates a radio and television station. As an established part of the department's curriculum, students are required to involve themselves in actual on-air experience on these stations. In addition, an internship potential is included in the formal curriculum, so that students with a *B* average or better may gain academic credit for actual professional work experience at broadcasting associated organizations outside the campus.

The core courses, Radio-Television 300M and 300P, must each be completed with a grade of *C* before students may continue in the major. This includes non-majors who wish to take any subsequent radio-television courses. Students are required also to complete Radio-Television 308 and 340, each with a grade of *C*. These courses may be taken concurrently. Students must complete 26 semester hours of college credit before registering for either 300M or 300P; transfer students with 45 semester hours may take both courses the entering semester. Southern Illinois University at Carbondale students should attempt to take these courses in the sophomore year; transfers with junior standing should take both courses the entering semester.

Radio-television majors may not take a pass/fail course in either the major or the minor unless such courses are designated as Mandatory Pass/Fail. Each radio-television major must, by the end of the sophomore year:

1. Either achieve a grade of *B* in both GSD 101 and GSD 117, or 119, or a grade of *C* in English 290.
2. Either demonstrate a proficiency in typing 30 words a minute by passing a test administered by the Radio-Television Department or attain a grade of *B* in Secretarial and Office Specialties 101A.

A maximum of 38 hours in radio-television courses may be counted toward the first 120 hours for graduation. Each student must complete Radio-Television 393, in addition to the four required courses and must have at least 32 hours in radio-television. Transfer students must complete at least 17 hours in the radio-television curriculum at Southern Illinois University at Carbondale.

Bachelor of Science Degree, College of Communications and Fine Arts

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Radio-Television</i>	32
<i>Minor in a cognate department</i>	15
(Exceptions must be approved by the Department of Radio-Television)	
<i>Electives</i>	28
<i>Total</i>	120

The department suggests specialized curricula in various areas of broadcasting for those students who may wish to pursue a specific area of interest. These suggested specializations must meet the department's basic requirements for graduation.

Courses

300M-4 Radio-Television Writing Performance Production. Introduction to the functions, theories, materials and techniques of writing, performing and production for radio and television. Students write, perform, and produce in radio and television studio laboratories. Extra fee for books and supplies \$10.00. Note: Radio-Television 300M and 300P are both prerequisites for all other courses. Students must attain a grade of *C* in these courses before taking other courses in the department. Prerequisite: sophomore standing.

300P-4 Radio-Television Foundations and Programming. Examination of the history, economics and governmental control of the American system of broadcasting plus a comprehensive examination of broadcast programming and audience analysis. Note: Radio-Television 300M and 300P are both prerequisites for radio-television majors for all other courses. Students must attain a grade of *C* in these courses before taking other courses in the department. Prerequisite: sophomore standing.

305-2 Basic Communication Research. Principles and techniques of research in communication. Types of research. Examination of empirical studies. Writing of research. Prerequisite: *C* in 300M and P.

308-3 Broadcast Laws and Policies. Legal aspects of broadcasting, via study of historical and current developments in rules, laws, philosophy of broadcast regulation. Relationship of federal and state law, and the various government regulatory agencies concerned with broadcasting. Case studies and written problems in broadcast law. Prerequisite: *C* in 300M and P.

310-3 Radio-Television News Writing. The basic techniques of writing, re-writing and editing news from local and wire service sources, for presentation of radio and television. Actual experience with the WSIU and WSIU-TV facilities is stressed. Laboratory hours required. Prerequisite: *C* in 300M and P; 308.

311-3 Radio-Television News Reporting. Classroom lectures on the techniques of news reporting and the writing of on-the-scene stories. Includes actual covering of a news "beat" and the reporting of the stories for air on radio and television. Laboratory hours required. Prerequisite: *C* in 300M and P; 308 and 310.

325-3 Survey of Cable Communications. History and projections of CATV industry growth, patterns of regulation and use. Relation of cable communications to other media, and to society. Extensive readings and discussion of the literature. Prerequisite: *C* in 300M and P.

335-3 CATV Programming-Production. Presents theoretical approaches to programming for cable systems originating programs, as well as practical workshop experience in creating and producing such programming. Laboratory hours required. Prerequisite: *C* in 300M and P; 325.

340-3 Production Analysis and Media Criticism. An examination of existing broadcast techniques to develop the student's sensitivity to and perception of broadcast production as a tool for communication. A section on communications theory ties analysis and criticism together. The course requires several written critical analyses of productions and current criticisms of the media. Prerequisite: *C* in 300M and P.

351-3 Programs and Audiences. The interrelationships of programs and audiences. Methods of audience and program research, and an investigation of the factors that influence programming decisions. Prerequisite: *C* in 300M and P.

360-4 Radio-Television Performance. Announcing techniques and extensive practice in various media situations. The development of disciplines controlling vocal and visual mechanics and interpretive performances. Radio and television studios and audio and video tape utilized for practice and performance. Laboratory hours required. Prerequisite: *B* in 300M, *C* in 300P; Speech 104.

363-3 Intermediate Radio Production. Techniques of producing, directing, writing and performing radio production announcements and programs, with emphasis on creative use of sound effects and music. Laboratory hours required. Prerequisite: *C* in 300M and P.

365-2 to 4 (2, 2) Television Studio Operations. The operational and production aspects of television studio operation. Participation in actual program production for WSIU-TV. Laboratory sessions will be arranged. Prerequisite: *C* in 300M and P.

369-2 Basic Television Directing. Laboratory instruction in television directing. Practical experience in WSIU-TV's broadcast color studio. Introduction to basic techniques of directing news, music, drama, interviews, and station breaks. Prerequisite: *C* grade in 300M and P; 340; 365.

370-3 Television News Film Production. Technique of filming short news stories and features. Each student will produce short television films using 16mm equipment. Laboratory hours required. Students purchase 300 feet black and white film stock and processing. Prerequisite: *C* in 300M and P.

371-2 Graphics for Television. Various techniques in the special demands of the graphic arts in television production. Laboratory hours required. \$10. cost for additional laboratory materials. Prerequisite: *C* or better in 300M and 300P.

377-3 Radio-Television Advertising and Sales. Study and practical experience in designing and developing promotional and advertising campaigns for the radio and television media. Selling techniques, methods and skills. Prerequisite: *C* in 300M and P, and in 351.

383-3 Basic Radio-Television Writing. Experience in writing radio and television formats, and announcements—commercial, public service, and promotional. Develops critical awareness and analytical attitude toward broadcast writing, and stresses imagination and creative writing skills. Frequent written assignments in and out of class. Prerequisite: *C* in 300M and P; 340.

384-1 to 2 Radio-Television Practicum. Practical experience in broadcast operations. Available to all majors at the end of the student's chosen sequence. Prerequisite: *C* in 300M and P, and consent of instructor. Mandatory Pass/Fail.

390-4 Operations and Management. Objectives, procedures, equipment, policies and costs in radio and television station development and operation. Program formats for radio and television. Necessary components of program format construction. Prerequisite: *C* in 300M and P; 308, 351, and 377.

391-1 to 3 (2, 1 or 1, 1, 1) Independent Study. Area of study to be determined by student in consultation with radio-television instructors. Prerequisite: *C* in 300M and P; consent of instructor.

393-3 Radio, Television, and Society. The interrelation of radio and television with social habit patterns and with economic and political systems. Prerequisite: *C* in 300M and P; completion of 86 hours.

395-2 to 4 Internship Program. News production, performance or management/sales work experience within a non-university professional organization. The student will be provided an educational experience beyond that available at the University. Prerequisite: junior status, 3.0 or better average in major, and selection committee consent.

430-2 Public Affairs and the Radio-Television Establishment. An examination of the history and scope of public affairs programming on radio and television. The effects of public affairs on programming and audiences. Prerequisite: *C* grade in 300M and 300P.

453-2 Public Broadcasting. The history and regulatory structure of public broadcasting in the United States today, with special emphasis on organizations regulated under the Public Broadcasting Act of 1967. Methods of funding public stations, programming, and careers in public broadcasting are also considered. Prerequisite: *C* grade in 300M and 300P; 308.

467-3 Radio-Television Production Survey. Production techniques and equipment for all phases of radio and television presentations for those who are not planning professional careers in broadcasting. Standards for equipment and facilities selection. Radio and television laboratory production projects. Prerequisite: non-major.

470-3 Documentary Film Production. For the student with a serious interest in the documentary film. Students work in teams researching, writing, filming, and editing films on subjects relating to historical, cultural, or social issues. Prerequisite: *C* grade in 300M, 300P, and 370 or *C* grade in Cinema and Photography 355 and 356 and consent of instructor. Mandatory Pass/Fail. Graduate students must take on letter grade basis.

481-2 ITV Administration, Production and Utilization. Development of ITV production with emphasis on the use of instructional objectives, the relationship of users' manual to the instructional series, and the functions of various personnel in the administration of instructional television. Prerequisite: *C* grade in 300M and 300P.

483-3 Advanced Radio-Television Writing. Exercises in writing broadcast manuscripts including documentary, drama, and children's programming. Prerequisite: *C* grade in 300M, 300P, and 383; 340.

489-2 to 6 Radio Television Workshop. Advanced work in various areas of radio-television and interrelated disciplines. Prerequisite: *C* grade in 300M, 300P, and consent of instructor.

491-3 to 6 (3, 3) Independent Study. Area of study to be determined by student in consultation with radio-television graduate faculty. Prerequisite: *C* grade in 300M and 300P and consent of instructor.

Recreation (Department, Major, Courses)

The Department of Recreation prepares the student for positions in the management of leisure time pursuits. The department builds its curriculum on a broad General Studies foundation, offers professional and skills courses within the Department of Recreation, and draws from many related departments of the University for competencies and skills in the preparation of leaders for the recreation profession.

The curriculum emphasizes the practical as well as the theoretical aspects of recreation by offering practicums, supervised field experience, and internships in various recreational settings throughout Illinois and the nation.

Students admitted to the Department of Recreation must meet the College of Education requirements and follow their procedures for acceptance. In order to be admitted to practicum courses, students must have a grade point average of 2.25 and the consent of the instructor. Students who do not meet the College of Education requirements must be screened and approved by the department undergraduate faculty.

Students majoring in recreation are required to complete 45 hours of General Studies, 29 hours of professional courses, a total of 12 hours of leadership experience in at least two areas of interest, and work closely with the department advisers in selecting electives for their chosen area of specialization.

The Department of Recreation offers courses leading to specialization in (1) park and community recreation, (2) recreation for special populations, (3) outdoor recreation, (4) commercial recreation management, and (5) program specialist.

Students majoring in recreation should start early in their college careers developing skills and competencies in music, dance, arts and crafts, literature, sports and games, nature, drama, and other leisure and cultural areas. The American Red Cross life saving certificate, American Camping Association campcraft certificate, workshop certificates in recreation sponsored by the state and national recreation and park associations, and other certificates in instructional areas are desirable in preparation for positions in recreation management.

As soon as possible recreation majors will decide on one of the five specializations and elect courses for their areas of specialization. The undergraduate advisers in the Department of Recreation are available to students to explain job opportunities and to outline required and elective courses in their chosen specialization. Electives must be on the 300 and 400 levels.

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Recreation</i>	75
English 290 or Journalism 340	2-3
Health Education 334	3
Psychology 305, 307	6
Recreation 300, 305, 315, 365, 380-4, 470, 490-12	30
One of the five specializations below	33-34
Park and Community	
Selected from: Recreation 310, 350, 395	18
Electives	15-16
Recreation for Special Populations	
Selected from: Recreation 310, 340, 350, 460	18
Electives	15-16
Outdoor Recreation	
Selected from: Recreation 310e, 310g, 301, 320, 350, 368, 390, 395	18
Electives	15-16
Commercial Recreation	
Recreation 375, 390, 395	7
Accounting 210	3
Administrative Sciences 170, 301, 304	9
Marketing 305	3
Electives	11-12
Program Specialist Electives	33-34
Total	120

Minor

Students may earn a minor in recreation by completing at least 18 hours of course work. Recreation 300, 305, 315, and 365 are required. The remaining hours may be taken in any recreation courses the student desires. Students wishing to earn a minor in recreation must receive written approval from the Department of Recreation.

Courses

300-3 Introduction to Leisure and Recreation. Basic philosophical and historical foundations and development of leisure and recreation in light of economic, political, and social change. Theories and basic concepts of recreation, leisure, and play will be stressed along with the development of an individual recreation philosophy.

301-3 Outdoor Education. Acquaints students with the philosophy and techniques of teaching in the out-of-doors. Ways and means of various outdoor learning experiences. Expenses for required field trips not to exceed \$20.00. Prerequisite: 300, 305, and 315.

305-3 Recreation Programming and Leadership. A study of essential elements and basic principles involved with the organization and administration of various types of recreation programs and services. Emphasis on leadership processes and methodology. Prerequisite: concurrent enrollment in 300.

310-16 (2, 2, 2, 2, 2, 2, 2) Recreation Skills. (a) Social Recreation, (b) Dramatics, (c) Leisurecrafts, (d) Music and Dance, (e) Campcraft, (f) Playground Activities, (g) Camp Counseling, and (h) Nature Interpretation. Prerequisite: 300, 305, and 315.

315-3 Recreation for Special Groups. Problems and characteristics of special groups in society such as teenagers, aged, emotionally disturbed, mentally retarded, physically hand-

icapped, prisoners, and delinquents. Emphasis on leadership processes, methodology, and program materials. Prerequisite: concurrent enrollment in 300 and/or 305.

320-3 Nature Interpretation. Acquaints the student with opportunities for the interpretation of natural phenomenon. Avocational as well as vocational aspects of natural resources. Required field trips not to exceed \$20.00. Prerequisite: 300, 305, 315.

340-5 (1, 1, 1, 1, 1) Recreation Activities for Special Populations. (a) Mentally Retarded, (b) Mentally Ill and Emotionally Disturbed, (c) Physically Handicapped, (d) Aged, and (e) Prisons. Prerequisite: 300, 305, and 315.

350-6 (1, 1, 1, 1, 1) Recreation Workshops. Current innovations and critical evaluation of methods, materials, and supervision of programs in one of the following areas: (a) Day Camps, (b) Puppetry, (c) Storytelling, (d) Leisurecrafts, (e) Family, and (f) Teen Centers. Prerequisite: 200, 305, and 315.

365-3 Park and Recreation Administration. Administrative procedures in park and recreation departments—organization, finance, personnel, facilities, program, public relations, and other areas of administration. Prerequisite: 300, 305, and 315.

368-2 Camp Management. Principles and procedures of selection and supervision of personnel, program planning, food preparation, health and safety, camp maintenance, evaluation, and other responsibilities of camp administration. Prerequisite: 300, 305, and 315.

375-2 Commercial Recreation Management. Problems of commercial recreation related to the profit motive and the challenges and possibilities for public service. Opportunities and examined in such areas as civic centers, student unions, spas and resorts, marinas, ice and roller rinks, sports complexes, and other commercial enterprises. Prerequisite: 300, 305, and 315.

380-1 to 6 Field Work in Recreation. Supervised leadership experience in a public or private agency with emphasis on activities common to (a) park and community, and (b) special populations. A maximum of six hours may be earned in a or b or a combination of the two.

385-1 to 2 Basic Research and Readings in Recreation. Orientation to research language, basic survey techniques, and areas of research in recreation. Selected readings in professional publications for the purpose of becoming acquainted with the types of research current in community, park, special populations, outdoor recreation, and related fields. Prerequisite: 300, 305, and 315.

390-2 Outdoor Recreation Management. Philosophy and principles underlying the growth and development of modern outdoor recreation programs. Outdoor recreation is examined in terms of supply and need, economic aspects, environmental problems, and future developments. Prerequisite: 300, 305, and 315.

395-3 Maintenance of Recreation Areas and Facilities. All phases and principles of development, maintenance, and construction of areas and facilities used in a recreation setting. Stress is put on selection and supervision of maintenance personnel. There is a maximum cost of \$5.00 for course materials in lieu of textbook. Prerequisite: 300, 305, and 315.

401-3 Fundamentals of Environmental Education. (Same as Agriculture 401.)

423-3 Environmental Interpretation. (Same as Agriculture and Forestry 423.)

450-3 Performing Arts in Education and Recreation. Principles, materials, and techniques of producing all types of drama, music, and dance activities for a variety of recreation and education settings and population groups. Prerequisite: consent of instructor.

460-3 Community and Institutional Recreation for Special Populations. Organization and administration of therapeutic recreation programs in hospitals, nursing homes, schools for the retarded, detention centers, prisons, and other institutions. Emphasis on programs for special populations in the community setting. Prerequisite: 300, 305, and 315.

470-2 School and Community Recreation. The role of the public schools in community recreation. Emphasis on current practices and trends in curriculum content, adult education, extracurricular activities, after-school and vacation programs, and cooperative programs with other agencies. Prerequisite: 300, 305, and 315.

475-1 to 24 (1 to 2 per topic) Recreation Workshop. Critical examination and analysis of innovative programs and practices in one of the following areas: (a) commercial, (b) student centers, (c) outdoor education, (d) outdoor recreation, (e) mentally retarded, (f) emotionally disturbed, (g) teen centers, (h) family, (i) aging, (j) prisons and detention centers, (k) physically handicapped, (l) budget and finance, and (m) playground leadership. (n) Maintenance of Areas and Facilities. Critical examination and analysis of innovative programs and practices in the maintenance of grounds and facilities. Maximum of six hours to count toward master's degree.

485-2 to 12 Practicum in Outdoor Education. A supervised experience in a professional setting. Emphasis on administrative, supervisory, teaching, and program leadership in outdoor, conservation, or environmental education setting. Costs for travel are the responsibility of the student. Prerequisite: consent of instructor.

490-2 to 12 Internship in Recreation. Supervised practicum experience in a professional

setting. Emphasis on administrative, supervisory, teaching, and program leadership in (a) park and community, and (b) special population settings. A maximum of 12 hours may be earned in a or b or a combination of the two. For undergraduate credit only. Prerequisite: 16 hours of recreation and consent of instructor.

500-3 Principles of Recreation.

520-3 Park and Recreation Management.

530-3 Programs in Recreation.

540-3 Planning Outdoor Areas for Education and Recreation.

550-3 Research in Recreation.

565-3 Seminar in Environmental and Outdoor Education.

570-3 Seminar in Recreation Management.

575-1 to 6 Individual Research.

580-1 to 6 Readings in Leisure and Recreation.

596-1 to 6 Field Work in Recreation.

599-1 to 3 Thesis.

Rehabilitation (Institute, Major [Graduate Only], Courses)

Courses in this department may require the purchase of supplemental materials not to exceed \$10 per course. Field trips are required for certain courses.

Courses

400-2 to 3 Introduction to Rehabilitation. An introduction to the broad field of rehabilitation, to include the processes (services), facilities and personnel involved. Note: Students can enroll in the didactic portion for two credits, or three credits if they elect the field trips. No student can take the field trips alone without taking the didactic portion as well.

402-1 to 3 Human Development and Behavior. Examines theories and systems of human development, personal behavior patterns and learning principles related conceptually to rehabilitation processes and practices.

406-3 Introduction to Behavior Modification. A survey of the principles and procedures in behavior modification and the scope of its application to human needs and problems.

409-3 Scientific Methods in Behavior Analysis. A general review of philosophical issues and methodological approaches to the study of human behavior; includes sampling procedures, group statistical designs and single-subject multi-manipulation and multireplication tactics. Prerequisite: consent of department.

419-1 to 3 Cross-Cultural Rehabilitation. (Same as Black American Studies 490.) Major focus on the relationship/comparison of basic cultural, economic, and psychosocial processes relative to the rehabilitation of man in contemporary societies. Prerequisite: consent of instructor.

421-3 Vocational Development and Placement. Relates the psychosocial meaning of work, process of vocational development, theories of occupational choice and labor market trends to current and innovative methods of job development, selective placement, and follow-up with the handicapped. Prerequisite: 400 or 501.

425-1 to 6 Developing Employment Opportunities. Designed to train rehabilitation personnel in the attitudes, methods, and skills pertinent to placement of handicapped persons in competitive and other occupations. Prerequisite: special standing and consent of instructor.

431-3 Assessment Procedures in Rehabilitation. Review of fundamental bases of measurement, criteria for evaluating tests, practice with representative instruments in major categories, and the use of tests and work samples in assessing the handicapped's functioning abilities and work potential.

436-3 to 4 Vocational Evaluation and Adjustment Services. Introduction to the philosophies of evaluation and adjustment services in rehabilitation settings with emphasis on the rationale for use of psychometric testing, functional behavioral analysis, work sampling, situational assessment, and on the job evaluation in relation to the development of individualized adjustment service programs.

445-2 to 12 Rehabilitation Services with Special Populations. (Same as Black American Studies 455.) Procedures and programs pertinent to the care and treatment of special populations. Two semester credits will ordinarily be granted for each unit.

(a)-6 (2, 2, 2) **Aging.**

(b)-6 (2, 2, 2) **Alcohol and Drug Abuse.**

(c)-6 (2, 2, 2) **Economically Deprived.**

(d)-6 (2, 2, 2) **Emotionally Disturbed.**

(e)-6 (2, 2, 2) **Genetically Disabled.**

(f)-6 (2, 2, 2) **Juvenile Offender.**

(g)-6 (2, 2, 2) **Mentally Retarded.**

- (h)-6 (2, 2, 2) **Physically Handicapped.**
- (i)-6 (2, 2, 2) **Public Offender.**
- (j)-6 (2, 2, 2) **Sensory Disabled.**
- (k)-6 (2, 2, 2) **Developmentally Impaired.** Prerequisite: consent of instructor.
- 451-3 to 4 General Rehabilitation Counseling.** A didactic and experiential analysis of the underlying premises and procedures of individual and group counseling in rehabilitation settings.
- 453-1 to 4 Personal and Family Life Styling.** The academic and personal competencies that are characteristic of fully-functioning, integrated persons within the context of our twentieth century environment will be systematically reviewed for adoption in every day living as well as in professional functions. Participants will focus on and experience life styling theories, models, and skills for their own growth and development and learn to assess basic risk-factors in their rehabilitation clients and families prior to helping them program a more balanced, synergistic, and holistic approach to living.
- 479-0 to 2 Technical Writing in Rehabilitation.** Fundamentals of writing skills applicable to special areas of concern to rehabilitation specialists, namely: writing journal articles, drafting program/grant proposals, and preparing news releases, and program/evaluation reports.
- 490-1 to 6 (1 to 3 per semester) Readings in Rehabilitation.** Supervised readings in selected areas. Prerequisite: consent of instructor.
- 494-1 to 12 Work Experiences in Rehabilitation.** Rehabilitation 494 and 594 both cannot be counted for a graduate degree, only one or the other can satisfy requirements toward a master's degree. Elective Pass/Fail.
- 501-2 Rehabilitation Foundations.**
- 503-3 Basic Behavior Analysis.**
- 508-3 Complex Behavior Analysis.**
- 513-1 to 3 Medical and Psycho-Social Aspects of Disability.**
- 523-3 Job Restructuring for the Handicapped.**
- 531-3 Individual Assessment Procedures in Rehabilitation.**
- 533-2 Vocational Appraisal.**
- 543-3 Child Behavior.**
- 545-3 Behavior Modification in Mental Retardation.**
- 553-3 Learning Therapies for Special Populations.**
- 554-3 Behavior Therapy.**
- 555-2 Contingencies of Reinforcement.**
- 562-3 Rehabilitation Facilities and Developmental Centers.**
- 564-3 School Related Behavior.**
- 568-3 Sexual Behavior and Rehabilitation.**
- 570-3 Rehabilitation Administration.**
- 572-1 to 3 Volunteer Administration and Programming.**
- 573-2 to 3 Programming, Budgeting, and Community Resources.**
- 575-2 Case Management and Reporting.**
- 576-2 to 3 Development and Supervision of Rehabilitation Employees.**
- 577-1 to 2 Behavioral Apparatus.**
- 579-3 Advanced Fiscal Management in Rehabilitation.**
- 582-1 to 4 Seminar in Rehabilitation Services.**
- 583-1 to 4 Seminar in Work Evaluation.**
- 584-1 to 6 (1 to 2 per semester) Seminar in Behavior Modification.**
- 585-1 to 4 Seminar in Counseling/Coordination Services.**
- 591-1 to 6 Independent Projects in Rehabilitation.**
- 593-1 to 6 Research in Rehabilitation.**
- 594-1 to 12 Practicum in Rehabilitation.**
- 595-1 to 12 Internship in Rehabilitation.**
- 599-1 to 6 Thesis.**

Religious Studies (Department, Major, Courses)

Religious studies examines religious attitudes and behaviors from their earliest beginnings through their dominant forms, east and west, to their modern developments and alternatives, pointing continually to the question, How is religion possible today? Study of this kind makes an interdisciplinary contribution to a liberal education in the humanities and social sciences and also provides a useful base for graduate study in religion, in the arts, or in any of the helping professions such as the ministry, medicine, psychiatry, law, social work, and public service.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 70.)	(4) + 8-14
Requirements for Major in Religious Studies	33
Minimum hours from each of four areas as follows:	
Area A: GSC 216, 217, Religious Studies 201	4
Area B: Religious Studies 332, 333, 334, 335, 336, 410f, 430	10 ¹
Area C: Religious Studies 320a, b, 360, 361, 441	8 ¹
Area D: Religious Studies 301, 302, 340, 341, 352, 353, Sociology 351	11 ¹
Electives	28-34
Total	120

¹Religious Studies 496 may be designed so as to apply toward fulfilling requirements of any one of the three areas B, C, or D. By special permission of the department, students may earn up to four hours major credit in each of three areas (B, C, and D) with courses taken in other departments.

Minor

Students may take a minor in religious studies by completing at least 17 hours distributed among the four areas listed above as follows: 3 hours in A, 7 hours each in any two of areas B, C, or D. Substitutions from other departments may be arranged.

Courses

- 201-4 Introduction to Religious Studies.** Comparative methods (historical, theological, psychological, social, scientific, philosophical) applied to various dimensions of religion; examples drawn from primitive, eastern, western traditions.
- 301-3 Philosophy of Religion.** (See Philosophy 301.)
- 302-3 Contemporary Western Religious Thought.** Issues and writers in the contemporary religious scene in Europe and America, with an option for individual study projects.
- 320-6 (3, 3) Biblical Studies.** A survey of Jewish and Christian biblical writings: how they came to be written, for what purposes, and with what effects. (a) The Old Testament. (b) The New Testament. Elective Pass/Fail.
- 332-3 Jewish Ideas and Culture.** Selected Jewish rites, beliefs, and customs and their cultural roots and consequences. Elective Pass/Fail.
- 333-4 Myth and Ritual in Archaic Religion.** (Same as Black American Studies 385.) The structure of the sacred among selected primitive peoples in Africa, Asia, and the Americas. Primitivism as a mode of being in contemporary culture. Elective Pass/Fail.
- 334-6 (3, 3) The Asian Traditions.** (a) Religions of India—Hinduism, early Buddhism, Sikhism, Jainism, Indian Islam. (b) Religions of the Far East—China (Taoism, Confucianism, Buddhism) and Japan (Shinto, Zen). Elective Pass/Fail.
- 335-4 Religion and Culture in America.** Tradition and change in the religious movements of the American people from the 17th to the 20th centuries in five periods: Puritans; Great Awakening; Revivalism and Social Reform; Social Gospel; Modern Disaffection. Special emphasis: Black and Women's Movements throughout the history. Elective Pass/Fail.
- 336-4 The Christian Experience.** Inquiries into the history and traditions of Christianity, indicating varieties of leadership, doctrine, ethic, and institutional form. Elective Pass/Fail.
- 340-4 Psychology of Religion.** Four major categories studied in relation to the psychological foundations of religion: fantasy (Feuerbach, Freud, Jung); meaning (Camus, May, Frankl); consciousness (Allport, Maslow, Castaneda); eventfulness (James, Boisen, Erikson); Special issues: behaviorism, altered states of consciousness. Elective Pass/Fail.
- 341-4 Mysticism and Human Transformation.** Comparative studies in selected "classical" mystics, their meaning for contemporary world views, and their relation to consciousness-raising techniques such as meditation and drugs.
- 352-4 Social Ethics and Life Style.** Ethical and critical study of the problem of life style. Issues considered: sexuality, work, family, intimacy, community responsibility, and patriotism. Basic question: How can one create an effective and humane life style?
- 353-4 Social Ethics and Modern Society.** (Same as Sociology 353.) Methods of social ethics applied to the study of problems in complex society such as: revolution, justice,

oppression, escape, peace, and impersonalization. Basic question: How is life in complex society possible?

360-4 Religious Narrative and Drama. How religious insights have been created, transmitted, modified, or denied in selected works of Greek tragedy, Shakespeare, Dostoevsky, Melville, and contemporary writers.

361-4 Religious Art and Music. How religion has inspired and used painting, sculpture, voice, and instrument; and how these arts have reacted to some of the crises in the religious dimensions of modern culture.

396-1 to 8 (1 to 4 per topic). Comparative Studies in Religion. Interdisciplinary and cross-cultural approaches to special topics in religion. Topics vary and are announced in advance; both students and faculty may suggest ideas. May be repeated as the topic varies up to a maximum of 8 hours. Prerequisite: departmental approval. Elective Pass/Fail.

410F-3 Comparative Religion. (See Anthropology 410F.)

430-4 Religious Traditions of Southern Illinois. Intensive study based upon field experiences in the religious (popular and traditional) of Southern Illinois. Not for graduate credit.

441-3 Themes in Greek Tragedies and the New Testament. (See Classical Studies 441.)

496-1 to 6 Honors Readings in Religion. Topics selected by student and instructor which ordinarily are not covered in depth in regular course offerings. Not available for graduate credit. Prerequisite: consent of department.

Science (College, Courses)

Courses

257-2 to 8 Concurrent Work Experience Credit. Practical experience in a laboratory or other work directly related to course work in a College of Science program and to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit for ongoing work experience is sought by petition and must be approved by the dean and the executive officer of the student's major program before registration. Mandatory Pass/Fail.

258-2 to 8 Work Experience Credit. Practical experience in a laboratory or other work directly related to course work in a College of Science program and to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit for past work experience is sought by petition and must be approved by the dean and the executive officer of the student's major program. Mandatory Pass/Fail for work experience approved before registration. No grade for past work experience.

259-2 to 24 Vocational Education Credit. Formal, post-secondary, educational credit earned in a military service or other vocational, technical, or occupational program and directly related to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit is sought by petition and must be approved by the dean and the executive officer of the student's major program.

Secondary Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

Secretarial and Office Specialties (Program, Specialized Major, Minor, Courses)

The business world offers many opportunities for secretarial and office personnel with special interests and extensive skills in specific areas. Both men and women find this a rewarding career field.

A student may earn credit by class attendance; transferring credits from an accredited post-secondary school, such as a community college; passing a profi-

ciency examination; credit granted for work experience; or credit granted for work completed in other educational situations.

The student may prepare for a position in a field of special interest by working with an adviser to choose from a variety of allied health, administrative, technical, graphic, and business courses to build upon the basic secretarial requirements in creating an individualized program of study. The student interested in legal secretarial work would take additional courses in legal shorthand, legal word processing, legal transcription, legal office procedures, and business law. The administrative assistant student would take courses in office management and supervision, executive typewriting, and statistics. One who wishes to become a medical secretary would develop a program including courses in physiology, medical shorthand, and medical office procedures. The student working toward a specialization for insurance secretaries would take courses in technical writing, insurance, machine transcription, and office management and supervision. A program leading to a specialization for the international service secretary or bilingual might include courses in international relations, current events, a foreign language, office procedures, and business law. Other possible specializations include engineering secretary, technical secretary, educational secretary, word processing secretary, or graphics and design secretary. It is possible to design a program with no shorthand competencies. Students in all areas of specialization will receive on-the-job experience in an office related to their area of specialization.

- The student may develop one of the special majors in the following manner:
1. The student should consult the program supervisor about a possible program.
 2. Students should draft a program which is coherent and unified, showing courses they plan to take, and explaining the purpose of the program.
 3. The completed program must have the support of at least one faculty sponsor.

Court and conference reporting may be pursued as a specialization within the associate degree program, and also is offered as a third-year specialization for those who have completed an associate degree legal secretarial program at a community college or other post-secondary institution. Students combine classroom instruction with actual courtroom experience in the company of an official reporter in preparation for the National Shorthand Reporters examination.

An advisory committee composed of professional secretaries and business executives serves the program. Current members are: Margie M. King, personnel officer, St. Louis County National Bank, Clayton, Mo.; Henrietta Lindsey, administrator, corporate employment services, Ralston Purina Company, St. Louis, Mo.; Rosemary Hendricks, secretary development and manuals coordinator, Eli Lilly & Co., Indianapolis, Ind.; Cheryl Welsh, assistant administrator, Memorial Hospital of Carbondale, Carbondale; Phillip M. Ray, official court reporter, Union County Courthouse, Jonesboro; Mary Burchett, legal assistant — officer manager, Charles A. William Law Offices, Paducah, Ky.; Wanda Mangels, legal secretary, Thomas, Mamer, Haughey, and Miller, Attorneys, Champaign; Earl Long, Marion; and Avis Cardwell, official court reporter, Jackson County Courthouse, Murphysboro.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

<i>Requirements for Specialized Major in Secretarial and Office Specialties</i>	
GSD 101	3
Accounting 110	3
School of Technical Careers 101, 153b	4
Secretarial and Office Specialties 101a, b, c, d, 104, 106, 107,	

109, and 102a, b, c, d, or 103a, b, c, d	29.5
Electives dependent upon specialty program including cooperative experience	26
Total	69.5

Minor in Secretarial and Office Specialties (for students with a major in Spanish)

The minor in secretarial and office specialties is intended for students who wish to train as bilingual secretaries with a major in Spanish. For those skilled in the secretarial areas of shorthand, typing, and transcription the minor requirements are Secretarial and Office Specialties 106, 107, 109, 201, 205, 208, 231, 232, 233, 234, and School of Technical Careers 101 and 3-7 hours of approved electives in secretarial and office specialties courses. For those unskilled in the secretarial areas of shorthand, typing, and transcription the minor requirements include the courses above and Secretarial and Office Specialties 101a, b, c, d, 102a, b, c, d, and 104.

Courses

101-10 (3, 2, 2.5, 2.5) Typewriting. Upon successful completion of this course, the student will (a) develop proper touch typing techniques, manipulate machine parts, determine layout of material, machine adjustments, and type basic communications, and use proper correcting and carbon copy techniques; (b) set up and type various business communications; (c) set up and type advanced business communications; (d) set up and type advanced and special business communications, and develop a workable skill on the Executive typewriter. Typing speed and accuracy will be emphasized at all levels. Lecture one hour. Learning Center three hours. Must be taken in sequence.

102-10 (3, 2, 2.5, 2.5) Gregg Shorthand. Upon successful completion of this course, the student will (a) demonstrate proficiency in gregg shorthand theory by reading and writing outlines accurately and rapidly and by taking practice dictation on familiar and related material; (b) demonstrate further shorthand skill by taking dictation at faster speeds, and by transcribing the dictated material accurately and rapidly; (c) attain higher speed and accuracy in shorthand with emphasis on mailability; (d) continue to attain higher speed and accuracy with emphasis on mailability and office-style material. Lecture two hours. Learning Center two hours. Must be taken in sequence.

103-10 (2.5, 2.5, 2.5, 2.5) Machine Shorthand. Upon completion of this course, the student will (a) be able to write on the machine by touch words by sound according to the touch shorthand theory patterns; write touch shorthand abbreviations, derivatives, brief forms, and punctuation symbols; read his own shorthand notes as well as printed text notes; (b) take new-matter dictation for five minutes and transcribe the material, transcribe letters in mailable form using the proper spelling, punctuation, English, and erasing techniques, and transcribe notes from 20 to 25 wpm; (c) write an extensive vocabulary of words, abbreviations, and derivatives; take new matter dictation for five minutes and transcribe that material accurately; (d) transcribe letters in mailable form using the proper spelling, punctuation, English, and erasing techniques; transcribe notes in a 30-minute period at the rate of 25 to 30 wpm; write machine shorthand from office style dictation, read own shorthand notes as well as printed text notes with accuracy. Lecture one hour. Laboratory three hours.

104-3.5 Machine Transcription (Introduction). Upon successful completion of this course, the student will properly operate and care for a transcribing unit and develop transcription speed by typing basic business communications from recordings; develop transcription techniques such as typing, grammar, punctuation, sentence structure, form and arrangement, as well as develop a higher transcription speed. The student will be required to make decisions in a variety of assignments. Lecture one hour. Laboratory three hours.

106-1 Reprographics. Upon successful completion of this course, students, given a particular reproduction job, will determine the most appropriate reproduction process by considering pertinent factors. They will then perform the necessary operations to reproduce the copies by using the duplicator, mimeograph, offset, and a variety of copiers. Lecture/laboratory two hours.

107-2 Filing. Upon successful completion of this course, the student will apply filing rules to alphabetic, subject, numeric, and geographic methods; determine the proper supplies for any given filing situation; and perform proper filing techniques in an organized, workable manner. Lecture/laboratory three hours.

109-3 Calculating Machines. Upon successful completion of this course, the student will demonstrate operational skill on the electronic calculator, ten-key adding machine, full-key adding machine, rotary calculator, and accounting machines. Production standards are used to measure skill proficiency. Lecture one hour. Laboratory three hours.

201-2 to 8 Cooperative Secretarial Experience. Upon successful completion of this course, the student will apply knowledges and skills learned in classroom situations to on-the-job situations in an office closely related to the student's specialty; apply knowledges and skills learned in classroom situations to courtroom situations. Minimum of one hour conference and twenty hours work experience per week.

205-2 Office Management and Supervision. Upon successful completion of this course students will demonstrate competency in the planning, organizing, and controlling of a business office. They will identify proper managerial skills, managerial roles, office services, physical facilities, and records management. Lecture two hours.

207-2 Personality Development. Upon successful completion of this course, the student will be able to demonstrate knowledges learned concerning personal hygiene, personality, poise and charm, clothing, and personal ethics. Lecture 2 hours.

208-3 Applied Law for Technical Careers. An individualized program of instruction design to acquaint students enrolled in the various technical programs of the School of Technical Careers with the fundamental legal practices and procedures common to their area of specialization. The student will identify, define, and describe contracts, agency and employment, commercial paper, security devices, and insurance procedures related to the student's technical field. Lecture 3 hours.

209-3 Applied Law for Technical Careers II. An individualized program of instruction design to acquaint students enrolled in the various technical programs of the School of Technical Careers with the fundamental legal practices and procedures common to their area of specialization. Students will identify, define, and describe security devices and insurance, partnership, corporations, real property and environment, personal property and bailments, and commercial paper. Prerequisite: 208 recommended.

211-3 Medical Typewriting. Upon successful completion of this course, students will produce a variety of medical office communications at the typewriter at speeds commensurate to their straight-copy speed. Lecture one hour. Laboratory three hours.

212-6 (3, 3) Medical Terminology/Shorthand. (a) The successful student will demonstrate the use of medical terminology, including prefixes and suffixes; spell and define medical terms and special terms and definitions used in consultation reports and medical case histories and actual medical courtroom testimony. (b) Increase speed and proficiency in the writing of a medical case history and consultation report as well as medical vocabulary, phrases, special terms, short cuts and medical abbreviations. Lecture two hours. Laboratory two hours.

213-3 Medical Office Procedures. Upon successful completion of this course, the student will be able to perform necessary duties required of a medical secretary in a hospital, doctor's office, or any related medical secretarial position. Lecture two hours. Laboratory two hours.

214-1 Machine Transcription (Medical). Upon successful completion of this course, the student will be able to use the transcriber with proficiency in typing letters, consultation reports, and case histories. Further stress is put on accuracy and speed. Lecture/laboratory two hours.

221-3 Legal Typewriting. Upon successful completion of this course, students will produce a variety of legal documents, papers, and office communications at the typewriter at speeds commensurate to their straight copy. Lecture one hour. Laboratory three hours.

222-6 (3, 3) Legal Terminology/Shorthand. Upon completion of this course the student should be acquainted with the responsibilities and duties of a law office secretary and a court reporter; know background information concerning law theory and practice for courtroom testimony; know the spelling, punctuation, meaning, and shorthand outlines for commonly used legal terms; be able to take dictation of letters, legal papers, and documents at speeds ranging from 100 to 120 words a minute; be able to transcribe dictated material accurately and in final, proper form; be able to transcribe from cold notes with a minimum of 95 percent accuracy; and have a self-made notebook of legal papers and documents, legal terms, and office shortcuts for use on the job. Lecture three hours. Laboratory two hours. Must be taken in sequence.

223-3 Legal Office Procedures. Upon successful completion of this course, the student will perform office duties peculiar to a legal office, as well as many procedures used in all types of offices. Lecture two hours. Laboratory two hours.

224-1 Legal Transcription. Upon successful completion of this course the student will be able to transcribe from a transcribing unit most all types of legal documents, letters, and other legal office communications at a rate of speed commensurate to the student's straight copy speed. Students will be required to make decisions in a variety of instances. Lecture/laboratory two hours.

225-3 Jury Charge. Upon completion of this course, the student should take three-minute dictation takes of jury charge, legal opinions, and other legal material at speeds ranging from 100 to 150 words a minute and transcribe that copy with a minimum of 95 percent accuracy; integrate into his writing the abbreviations and phrase shortcuts presented; transcribe from cold notes on jury charge material with a minimum of 95 percent accuracy; type legal correspondence, documents, and papers in mailable form; and compile a legal notebook consisting of legal terminology, abbreviations, court information, legal forms, shortcuts, letter samples, and depositions.

226-3 Two-Voice Testimony. Upon completion of this course, students should: take dictation of two-voice and multiple-voice testimony at speeds ranging from 80 to 150 words a minute and transcribe that material with a minimum of 95 percent accuracy; transcribe cold notes material in a 30 minute period in final form; integrate the legal shortcuts and theory presented in class into their writing of shorthand notes. Lecture two hours. Laboratory two hours.

231-3 Executive Typewriting. Upon successful completion of this course, the student will produce various office communications at the typewriter at speeds commensurate to the straight-copy speed. Lecture one hour. Laboratory three hours.

232-3 Advanced Shorthand. Upon successful completion of this course, the student will take dictation at speeds ranging from 100 to 120 words a minute, transcribe office communications with emphasis on mailability, and build transcription speeds ranging from 20-30 words a minute. Lecture one hour. Laboratory three hours.

233-3 Secretarial Office Procedures. Upon successful completion of this course, the student will be able to perform efficiently office duties, including relating to people, handling incoming and outgoing mail, handling telephone situations, composing office communications, setting up travel arrangements and conferences, performing basic record-keeping operations, and carrying out supervisory responsibilities. Lecture three hours.

234-1 Machine Transcription (Advanced). Upon successful completion of this course, the student will be able to transcribe from transcribing unit office communications which require the transcriber to make decisions before completing the mailable product. Students' speed should be commensurate to their straight copy speed. Lecture/laboratory two hours.

241-3 Insurance Typewriting. Upon successful completion of this course, students will produce a variety of insurance office communications at the typewriter at speeds commensurate to their straight-copy speed. Lecture one hour. Laboratory three hours.

242-3 Insurance Shorthand. Upon successful completion of this course, the student will demonstrate competency by taking dictation with insurance vocabulary words at speeds ranging from 100-120 words a minute, transcribe insurance office communications with an emphasis on mailability, and build transcription speeds ranging from 20-30 words a minute. Lecture one hour. Laboratory three hours.

243-3 Insurance Office Procedures. Upon successful completion of this course, the student will perform office duties peculiar to an insurance office as well as many procedures used in all types of offices. Lecture three hours.

244-1 Machine Transcription (Insurance). Upon successful completion of this course, the student will be able to transcribe from a transcribing unit most all types of insurance office communications at a rate of speed commensurate to the student's straight copy speed. Students will be required to make decisions in a variety of instances. Lecture/laboratory two hours.

312-3 Advanced Legal Dictation. Upon completion of this course, students should have increased the speed of their writing on legal matter to 225 words a minute; supplemented their vocabularies and short forms with more legal terms and Latin terms; become proficient enough in taking two-voice material at 225 words a minute for five minutes with 95 percent accuracy; one voice legal opinion at 200 words a minute for five minutes with 95 percent accuracy; and literary material at 180 words a minute with 95 percent accuracy. (These are the requirements for the CSR Examination.) Lecture/laboratory five hours.

313-5 Advanced Machine Shorthand. Upon completion of this course, the student should have built a take speed of 200 words a minute with accuracy tolerance of five percent on two-voice testimony material, and 150 words a minute on jury charge; reviewed abbreviations; increased transcription speed from 40 to 50 words a minute; built legal shortcuts; reviewed rules of punctuation; maintained speed dictation for long periods of time (eight-minute takes for transcript). Lecture three hours. Laboratory three hours.

315-3 Testimony and Depositions. Upon completion of this course, the student should have built speed to 225 words a minute in taking depositions; transcribed classroom takes as well as those taken in the Circuit Court at speeds ranging from 150 to 225 words a minute with 95 percent accuracy; become adept at taking medical two-voice testimony and depositions at speeds ranging from 150 to 225 words a minute with 95 percent accuracy. Lecture/laboratory five hours.

316-1 Legal Ethics. Upon completion of this course, the student should understand the canons of professional ethics as listed in *Cochran's Law Lexicon* and the NSRA Code of Ethics; have observed the etiquette and duties of court reporters by attending court sessions; have taken testimony in court and transcribed that copy in proper, final form; have taken jury charges and legal dictation in class at speeds of 100 to 180 words a minute and transcribed that copy with a minimum of 95 percent accuracy; have taken depositions and transcribed them in state-approved form. Lecture/laboratory two hours.

317-2 to 5 Cooperative Court Reporting Experience. Upon completion of this course, students will have gained actual courtroom experience (40 hour minimum); developed the necessary adaptability to take courtroom testimony; developed self-confidence in their ability to report; acquired training in taking four-part dictation and become acquainted with actual trial procedures; gained the opportunity of transcribing actual court proceedings and compar-

ing transcripts with reporters; gained practice in reading notes aloud. Lecture one hour. Laboratory six hours.

Social Studies (Major)

Bachelor of Science Degree, College of Education

<i>General Studies Requirements</i>	45
<i>Requirements for Major in Social Studies</i>	49 ¹
GSB 300, 301, U.S. history elective	(6) + 3
World history, 205 plus six hours at 300 or 400 level	9
Economics 214, 215, economics elective	9
GSB 212, Political Science 213, political science elective	10
GSA 330, Geography 300, geography elective	(3) + 5
GSB 104, 202, Sociology 301	(6) + 4
Electives to be chosen from any one of three fields of anthro- pology, psychology, or sociology but concentration in one is recommended	7
Curriculum, Instruction, and Media 469	2
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	2
<i>Total</i>	120

¹ Although the hours shown in parentheses are required for the major, they also will count toward the 45 hour requirement in General Studies.

Social Welfare (Major, Courses)

The social welfare program, which is a part of the Division of Social and Community Services, offers a professional curriculum which is designed to meet the educational needs of students with career interests in the human services field and leads to a Bachelor of Science degree with a major in social welfare. The curriculum provides an interdisciplinary approach to understanding man in contemporary society, basic social problems, and some of the issues associated with the prevention and treatment of these problems.

The basic objectives of the program are; 1) to prepare students for immediate employment in social work positions which do not require graduate education; 2) to prepare students for graduate social work education; and 3) to contribute to the enrichment of general education by challenging students to understand social welfare needs, services, and issues.

Two of the basic courses in the curriculum are field experiences. In these courses the students attend weekly seminars and work a minimum of 20 hours each week under supervision in an approved social service agency where they provide direct services to clients. Placements may be made over two semesters half time or for one semester full time. Field placements may not begin during summer session. Arrangements can be made for field practicum in approved social service agencies away from the University under special circumstances.

The social welfare program is accredited by the Council on Social Work Education, the national accrediting agency, and is recognized for advanced standing credit by most graduate schools of social work.

Academic Requirements. Students must be in good academic standing with at least a C grade point average in order to be considered for acceptance into the program.

Advisement. A student planning to major in social welfare should consult with the social welfare academic adviser of the College of Human Resources as early as possible in order to plan an orderly and coherent program. All faculty members are available for advice and career guidance information.

Bachelor of Science Degree, College of Human Resources

<i>General Studies Requirements</i>	45
Area A: GSA 125, 209, 220, 221, 302 recommended	
Area B: GSB 202, 203 required. GSB 104, 109, 112, 207, 211, 212, 299, 321, 325, 330 recommended	
Area C: GSC 104, 205, 214, 325, 363, 390 recommended	
Area D: University requirements	
Area E: University requirements	
<i>Requirements for Major in Social Welfare</i>	65
Social Welfare 375, 383, 401, 402, 404, 411, 416, 421, 441, 442, and three additional hours approved by the department	43
Political Science 426	3
Sociology: One of the following: 302, 332, 335, 340, 372, 406, 424, 426	4
Psychology: One of the following: 301, 303, 304, 305, 307, 330, 415, 431, 440	3-4
Electives in Social Welfare and other units in the College of Human Resources	11-12
<i>Electives</i>	10
Recommended: Black American Studies 230, 330, Economics 303, 304, History 365, Philosophy 342, Political Science 324, Spanish 340	
<i>Total</i>	120

Courses

375-3 Social Welfare as a Social Institution. Interdependence of social, cultural, political, and economic factors in the history, theory, and practice of social welfare, with special reference to development of the social work profession in response to welfare problems.

383-3 Introduction to Interviewing. Theory and practice of interviewing as a means of gaining information, and of understanding and imparting the same. Focus is on the interview as a tool in social work, but principles are generally applicable.

391-2 Social Services and Minority Groups. (Same as Black American Studies 391.) Exploration of the needs, experiences, and attitudes of minority groups pertaining to social welfare services. Implications for policy and programs in such areas of service as physical and mental health, child welfare, family planning, income maintenance, revrecreation, education, training and employment. Prerequisite: 375.

396-1 to 3 Readings in Social Welfare. Varying topics not ordinarily covered in depth in regular courses and of specific interest to advanced students. Prerequisite: consent of instructor.

401-4 Processes in Social Work (Casework). Analysis of generic base of social work, of theory, rationale, and practice of casework. Prerequisite: 375.

402-3 Processes in Social Work (Social Group Work). Analysis of social group work, community welfare organization methods, and interventive techniques. Not for graduate credit. Prerequisite: 375.

404-3 Integrated Methods in Social Work. A team-teaching seminar approach to exploring the interrelationship of casework, groupwork, and community work in synthesizing a gestalt impact on intervention and problem-solving techniques. Not for graduate credit. Prerequisite: 441, 442 or concurrently with 442.

411-3 Methods of Social Research. Principles and methods of scientific inquiry applied to social work research and practice. Required for undergraduates. Not for graduate credit. Prerequisite: 375.

416-3 Human Behavior and the Social Environment. A social systems approach to the study of human development and behavior. Examination of environmental forces impinging

on the individual and implications for social work practice. Prerequisite: 375 and at least one approved upper division course in psychology, sociology, and political science. Open to College of Human Resources majors only.

421-3 Seminar in Problems and Issues in Social Welfare. Critical evaluation of contemporary social work practice, innovations, social policy, and planning. Prerequisite: 401, 402, 441, 442 or concurrently with 442.

426-2 Comparative Social Welfare Systems. An examination of social welfare policies and practices in other countries and by international organizations. Prerequisite: 375.

441-7.5 Social Work in Selected Agencies. At least 20 hours per week of supervised experience in an approved social work agency with concurrent weekly seminar. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 383, 401, 402, and a 2.5 grade point average in departmental prerequisites. Mandatory Pass/Fail.

442-7.5 Advanced Field Practicum. Supervised field work experience in an approved social service agency with concurrent weekly seminar. At least 20 hours per week. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 383, 401, 402, and a 2.5 grade point average in departmental prerequisites. Mandatory Pass/Fail.

451-2 Seminar in Social Casework. A problem-solving approach based on case studies aims to explore alternate methods in counseling of individuals and families. Prerequisite: consent of instructor.

452-2 Seminar in Group Treatment. Study of theory and practice in social group work covering various methods of group treatment interventions. Prerequisite: consent of instructor.

453-2 Seminar in Community Work. Study of variety of strategies of intervention in agency and grass roots decision-making processes leading to social change through citizen participation. Prerequisite: consent of instructor.

461-2 Child and Family Services. Problems of child-parent relationships and difficulties in social functioning of children and adolescents. Adoptions, foster home and institutional placements, protective services. Prerequisite: consent of instructor. Elective Pass/Fail.

462-2 School Social Work. Organization, development, and administration of school social work. Referrals for school social work services. Functions and responsibilities related to pupil personnel services. Evaluation, school placement, remedial procedures, cooperation with home and community agencies. Prerequisite: consent of instructor.

463-2 Social Work with the Aged. Basic concepts of social work methods applied to the older adult group. Characteristics of the aged group, its needs and potentials. Social trends and institutions involved in services to the aged. Prerequisite: consent of instructor.

464-2 Public Welfare. Social work knowledge, values, and techniques in public assistance. Care and rehabilitation of the public welfare client affected by social problems and social change. Prerequisite: consent of instructor.

465-2 Strategies in Health and Mental Health. A survey of current legislative and service trends in health programs under governmental and voluntary auspices. Preventive and restorative concepts will be explored in relation to chronic disease, aged adults, maternal and child health, and community health services. Role of social workers as an integral part of the medical and psychiatric case system. Prerequisite: consent of instructor.

496-1 to 6 Independent Research in Social Welfare. Not for graduate students. Prerequisite: consent of instructor.

Sociology (Department, Major Courses)

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 70.)	(4) + 8-14
Requirements for Major in Sociology	32
Sociology 301	4
Sociology 497 senior seminar	4
Sociology (Two 400-level courses)	8
Sociology electives	16
Electives	29-35
Total	120

Minor

A minor in sociology consists of a minimum of 15 hours including Sociology 301. Students completing a minor in sociology to meet part of the requirements for a teaching certificate in the State of Illinois must complete a minimum of 18 hours including Sociology 301.

Honors Program

The department offers a honors program for academically outstanding sociology majors. Qualifications for acceptance into this program consist of: (1) an overall grade point average of at least 3.00; (2) completion of 8 hours in sociology courses with a grade point average of at least 3.25. Three honors courses are offered at the junior and senior class levels. For details, qualified students interested in this program should consult the director of undergraduate studies in the Department of Sociology.

Courses

301-4 Principles of Sociology. This course is intended to acquaint sociology majors and prospective majors with basic principles in a broad sampling of substantive areas of contemporary sociology as background for more advanced courses. Elective Pass/Fail.

302-4 Contemporary Social Problems. Review of the basic sociological perspectives used in the study of social problems; discussion and analyses of selected contemporary social problems; assessment of alternative courses of action for the solution of problems. Elective Pass/Fail.

308-4 Statistics for Social Science. Methods and application of statistics in the social sciences. Measures to describe distribution, measures of relationship, statistical inference. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

312-4 Elements of Sociological Research. Types of research. Principles and steps in research procedure. Selected techniques. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

316-3 Political Socialization. (See Political Science 316.)

332-4 Comparative Social Organization. Examination of social organization and institutions in pre-industrial and industrial societies. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

335-4 Urban Sociology. The structure, culture, and problems of modern cities, with emphasis on American cities; the impact of culture and structure on modern urban life; problems of community, social identity, mass culture, and social control; implications for urban planning. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

340-4 Family. The family in historic and contemporary society; evolution of the modern family; changes in family functions, structure, roles; and an examination of variation and change in family systems. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

351-4 Sociology of Religion. The origin and function of religious ideas and institutions in society, their relationship to social change and stability. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

353-4 Social Ethics and Modern Society. (See Religious Studies 353.)

371-4 Population. Characteristics of population, problems of growth, composition, distribution, differential fertility, international and internal migration. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

372-4 Criminology. The nature of crime; criminal statistics; causal factors; theories and procedures in prevention and treatment. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

374-4 Sociology of Education. Methods, principles, and data of sociology applied to the educational situation; relation of education to other institutions and groups. Prerequisite: consent of instructor or 301 or six hours of GSB courses. Elective Pass/Fail.

396-1 to 3 Readings in Sociology. Prerequisite: 301 and consent of department and instructor. Elective Pass/Fail.

396H-1 to 3 Honors Readings in Sociology. Topics selected jointly by student and instructor which ordinarily are not covered in depth in regular course offerings. Prerequisite: 301 and consent of department and instructor. Elective Pass/Fail.

397H-3 Honors Seminar in Sociology. Varying sociological topics studied in depth and breadth. Maximum opportunity for student participation in the exploration of the subject. Prerequisite: 301 and consent of department and instructor. Elective Pass/Fail.

406-4 Social Change. Theories and problems of social change; their application, with emphasis on the modern industrial period. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

415-3 Logic of the Social Sciences. (See Philosophy 415.)

424- 4 Social Movements and Collective Behavior. A sociological analysis of the behavior of collectivities in uninstitutionalized settings; crowds, masses, publics, and social movements will be examined with relation to their social and cultural backgrounds, forms of expression and organization, and their functions in society. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

426- 4 Social Factors in Personality and Adjustment. Review of selected theoretical orientations and research traditions in social psychology. Comparison of different theoretical and methodological approaches—symbolic interaction, role theory, developmental and social psychology, theories of attitude organization and change, studies of belief and value systems, theories of socialization. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

435- 4 Social Stratification. A comparative study of social class systems, with emphasis on the American system. Relationships of class position to behavior in family, religion, politics, etc. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

437- 4 Sociology of Rural Development. Rural development and rural social problems in the United States and other countries. Concepts of rural and urban, developed and under-developed, characteristics of rural populations and institutions; rural development analyzed functionally and historically. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

450- 4 Social Thought. Traces the historical development of sociology from its beginnings in the Enlightenment to the classical expositions of the early 20th Century. Prerequisite: 301 or consent of instructor.

454- 4 Sociology of Science. Emphasis on the origins and growth of science in historical perspective, reciprocal relations between science and society in the 20th Century, science as a social system, differentiation within and relations between disciplines, and implications of the social organization of scientific research and funding. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

460- 4 Sociology of Medicine. Examination of the sociological factors involved in health and illness, the role of medicine in society, the organization of medical care and health institutions in the United States, and the prospects for sociological research in this area. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

465-3 Sociology of Aging. The adult life cycle from a sociological perspective, with emphasis on the later stages of adulthood. Special topics on aging include demographic aspects, family interaction, ethnicity, and cross-cultural trends.

471- 4 Demography and Human Ecology. The demographic portion surveys general theory and techniques of population analysis, with emphasis on contemporary research in mortality, migration, fertility, and problems of world population growth and distribution. The ecological portion summarizes human ecology from the classical Chicago school to current research on sustenance organization and the division of labor. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

472-3 The American Correctional System. (See Administration of Justice 472.)

473- 4 Juvenile Delinquency. (Same as Administration of Justice 473.) Nature of sociological theories of delinquency; analytical skills in studying the delinquent offenders; systematic assessment of efforts at prevention, control, and rehabilitation in light of theoretical perspectives. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

475- 4 Political Sociology. (Same as Political Science 419.) An examination of the nature and function of power in social systems at both the macro- and micro-sociological levels of analysis, the social bases of power and politics; and various formal and informal power structures; the chief focus will be on American society. Prerequisite: 301 or consent of instructor. Elective Pass/Fail

497- 4 Senior Seminar. Contemporary issues in sociology and the analysis of these issues. Prerequisite: senior standing with 20 hours in sociology (including 301), or consent of instructor. Elective Pass/Fail.

498-1 to 4 Independent Research. With a faculty member the student arranges a research topic resulting in a paper or report. Prerequisite: senior standing with 20 hours of sociology (including 301), and consent of instructor. Elective Pass/Fail.

498H-1 to 4 Honors Independent Research. Advanced research study of a problem. Not for graduate credit. Prerequisite: senior standing with 20 hours in sociology (including 301), and consent of department and honors standing. Elective Pass/Fail.

501-4 Survey of Sociological Theory.

502-4 Seminar on Theoretical Systems in Sociology.

506-4 Seminar on Contemporary Sociological Theory.

512-5 Sociological Research.

519-4 Methodological Foundations of the Social Sciences.

521-4 Seminar in Social Psychology.

522-4 The Sociology of Small groups.

526-8 (4, 4) Quantitative Methods of Sociology.

529-4 Sampling and Inference in social Research.

530-2 to 12 (2 to 4 per topic) Topical Seminar in Sociology.

532-4 Urban Social Structure.

537-4 Sociology of Law.

- 539-4 Seminar in Complex Organization.
- 542-4 Seminar on the Family.
- 543-4 Seminar in Family Variability and Change.
- 551-4 Sociology of Religion.
- 562-4 Deviance and Disorganization.
- 564-4 Social Factors in Health and Illness.
- 566-4 Sociology of the Community.
- 572-4 Seminar in Criminology.
- 574-3 to 4 Seminar in the Sociology of Education and Science.
- 591-1 to 4 Individual Research—Supervised Research Projects.
- 596-1 to 8 Readings in Sociology.
- 599-1 to 6 Thesis.
- 600-1 to 32 (1 to 16 per semester) Dissertation.

Special Major (Major)

In addition to the regular major, the University encourages students with special needs and interests to design their own majors. They may develop a special major in the following manner:

1. The student should consult a faculty member about a possible program.
2. The student should draft a program which is coherent and unified, showing the courses planned, and explaining the purpose of the program.
3. The completed program should have the support of at least one faculty sponsor and the dean or deans of the academic units involved.
4. Final approval including the title designation of the major must come from the dean of General Academic Programs.

Approval of a special major does not exempt a student from any University requirements or from any of the requirements of the academic unit from which the student's degree will be awarded.

Special Education (Department, Major, Courses)

In the Department of Special Education, teachers are prepared to work with behaviorally disordered, mentally retarded, and learning disabled children. Students seeking the Standard Special Certificate will complete a 120 semester hour program leading to approval in one of the three handicap areas listed above. Students who wish to obtain joint certification in special education and elementary education must complete a 144 to 149 hour program.

All programs are fully approved by the Illinois State Teacher Certification Board.

Bachelor of Science Degree, College of Education

SPECIAL EDUCATION MAJOR—STANDARD SPECIAL CERTIFICATE WITH APPROVAL IN BEHAVIORAL DISORDERS, OR MENTAL RETARDATION, OR LEARNING DISABILITIES

<i>General Studies Requirements</i>	45
GSA: 9 hours	
GSB: 9 hours including 202 and 212, 300 or 301	
GSC: 12 hours including GSC 100, 101, or 205; must include one music and one art course in English or American literature	
GSD: GSD 101; 117 or 119; speech; Mathematics 114 or equivalent to substitute for GSD 107	
GSE: 4 hours including 201 and two hours of physical education activity.	
<i>Additional General Education Requirements for Certification</i>	13-14
Art 348 or Vocational Education Studies 370; Music 302 or 300; Physical	

Education 202; Mathematics 314	
Psychology 301	
Requirements for Major in Special Education	49-50
Professional Education Requirements	26
Education 201, 301, 302, 303, 304c, 312, 350, 400, 401	
Special Education Requirements	23-24
Special Education 400, 411, 423, 425	10
Curriculum, Instruction, and Media 312, 315	6
Certification Area	7-8
Behavioral Disorders: 401, 417, 430	
Mentally Retarded: 402, 406, 418; 430 for students interested in the educable mentally retarded or 431 for students interested in the trainable mentally retarded	
Learning Disabilities: 404, 419, 430	
Electives	11-13
Special Education 421, 430, 431	
Psychology 305, 307 (both required in behavioral disorders)	
Guidance 412, Psychology 431 (one required)	
Sociology 473 or Rehabilitation 406 (one required in behavioral disorders)	

Total	120
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SPECIAL EDUCATION MAJOR—JOINT CERTIFICATION IN SPECIAL EDUCATION AND ELEMENTARY EDUCATION SPECIALIZATION

General Studies Requirements	45
GSA: 9 hours	
GSB: 9 hours including 202 and 212, 300 or 301	
GSC: 12 hours including GSC 100, 101, or 205; must include one music and one art course and one course in English or American literature	
GSD: GSD 101; 117 or 119; speech; Mathematics 114 or equivalent to substitute for GSD 107	
GSE: 4 hours including 201 and two hours of physical education activity	
Additional General Education Requirements for Certification	13-14
Art 348 or Vocational Education Studies 370	
Music 302 or 300	
Physical Education 202	
Mathematics 314	
Psychology 301	
Requirements for Major in Special Education	69-70
Professional Education Requirements	26
Education 201, 301, 302, 303, 304c, 312, 350, 400, 401	
Special Education Requirements	25-26
Special Education 400, 411, 423, 425; Education 401-8 (student teaching, special education)	18
Certification Area	7-8
Behavioral Disorders: 401, 417, 430	
Mentally Retarded: 402, 406, 418; 430 for students interested in the educable mentally retarded or 431 for students interested in the trainable mentally retarded	
Learning Disabilities: 404, 419, 430	
Elementary Education Requirements	18
Curriculum, Instruction, and Media 315, 312, 423, 424, 426, 435	
Electives (must bring total in general education to 78)	17-20

- Special Education 421, 430, 431
- Psychology 305, 307 (required in behavioral disorders)
- Guidance 412 or Psychology 431 (one required)
- Sociology 473 or Rehabilitation 406 (one required in behavioral disorders)

Total144-149

Courses

- 400-3 Introduction to Special Education.** Physical, mental, emotional, and social traits of all types of exceptional children. Effects of handicaps in learning situations. Methods of differentiation and techniques for rehabilitation. Case studies, observations, and field trips may be required.
- 401-3 Problems and Characteristics of the Behavior Disordered Child.** Diagnosis, screening, classroom management, placement considerations, goals, and the effective use of ancillary services for school children who are emotionally disturbed and/or socially maladjusted. Emphasis on the understanding of maladaptive behavior through principles of learning and behavior. Prerequisite: 400 or concurrent enrollment or consent of department chairman.
- 402-2 Problems and Characteristics of the Mentally Retarded Child.** Emphasizes a developmental approach to understanding and dealing with children who have mildly and moderately reduced mental abilities. Considers historical, theoretical, and practical factors pertinent to mental retardation. Prerequisite: 400 or concurrent enrollment or consent of department chairman.
- 403-3 Problems and Characteristics of the Gifted Child.** Designed to help teachers in the identification of and programming for gifted and talented children. Prerequisite: 400 or concurrent enrollment or consent of department chairman.
- 404-3 Problems and Characteristics of the Learning Disabled Child.** Behavioral, emotional, physical, and learning characteristics of children with learning disabilities. Emphasis on receptive and expressive modalities for learning; theories dealing with causes and management. Prerequisite: 400 or concurrent enrollment or consent of department chairman.
- 405-3 Education of the Preschool Handicapped Child.** Emphasizes classroom procedures for enhancing development in children with developmental delay. Covers organization of the curriculum, goal setting, task analysis, lesson planning, and classroom organization. Practicum with preschool handicapped children is an integral part of this course. Prerequisite: 400, concurrent enrollment, or consent of chairman.
- 406-2 Characteristics of the Severely Handicapped Child.** Provides the basic developmental, psychological, intellectual, and curricular background essential to students wishing to teach in this area of special education. The course requires 30 hours of lecture and 15 hours of lab with severely handicapped children. Students will be video-taped for self-critique and progress evaluation. Prerequisite: 400 or consent of department chairman.
- 409-1 to 6 Cross-Cultural Studies.** Seminar and/or directed independent study concerned with socio-cultural variables affecting the personality characteristics and educational needs of children who are diagnosed as mentally, emotionally, or psychically handicapped. Prerequisite: 400 or consent of instructor and department chairman.
- 411-3 Assessment and Planning for Remediation in Special Education.** Theories of special tests and development of remedial programs for children with special learning problems. Purchase of testing materials costing approximately \$5 is required. No text is required. Prerequisite: 400 and consent of department chairman.
- 412-3 Assessment and Remedial Planning for the Preschool Handicapped Child.** An introduction to the assessment of preschool handicapped children including the specifics of screening, tests used by the classroom teacher and observational procedures. A charge of \$5 for testing materials is required. No textbook is required. Prerequisite: 400 and 405.
- 417-2 Methods and Materials for Teaching Behaviorally Disordered Children at the Elementary Level.** Psychoeducational procedures used in teaching the behaviorally disordered child. Includes field trips, meetings with parents, and visits by resource persons from schools and agencies. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.
- 418-2 Methods and Materials for Teaching Educable Mentally Handicapped Children at the Elementary Level.** Psychoeducational strategies used in teaching the educable mentally handicapped child. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.
- 419-2 Methods and Materials for Teaching Learning Disabled Children at the Elementary Level.** Psychoeducational strategies used in teaching children with learning disabilities. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.
- 421-3 Methods and Materials for Teaching Pre-School or Elementary Severely Hand-**

icapped Learners. Emphasis on methods of teaching those with severe handicaps. Minimum of one video-taping session, and individualized tutoring, are required of all participants. Prerequisite: 411 or 412; concurrent enrollment in Education 312 and Education 400.

423-2 General Procedures in Special Education. Deals with methods, materials and instructional management practices common to the instruction of the handicapped. Prerequisite: 411 or 412; concurrent enrollment in Education 312.

425-2 Home-School Coordination in Special Education. Consideration of the techniques used in parent interviews, conferences, and referrals by school personnel with parents of handicapped children. Prerequisite: 400 or consent of department chairman.

430-2 Work-Study Programs for Handicapped Adolescents to Age 21. Deals with modifications of and additions to school programs to insure that they are appropriate to the needs of the mildly handicapped adolescent. Includes detailed coverage of joint work-study programs as preparation for vocational adequacy. Prerequisite: 400 and one of 401, 402, 403, or 404.

431-2 Work-Study Programs for Severely Handicapped Adolescents to Age 21. Deals with program offerings in public school special education programs designed to prepare the severely handicapped adolescent for his maximum vocational adequacy. Prerequisite: 400 and one of 401, 402, 404, or 406; concurrent enrollment in Education 312.

456-4 (2, 2) Music for Exceptional Children. (See Music 456.)

490-1 to 5 Readings in Special Education. Study of a highly specific problem area in the education of exceptional children. Open only to selected seniors and to graduate students. Prerequisite: 400 and consent of department chairman.

500-3 Special Education Research Problems.

502-2 Special Education Research Paper.

505-3 The Pre-School Handicapped Child.

511A-3 Advanced Assessment and Remedial Planning in Special Education.

511B-3 Advanced Remediation in Special Education.

512-3 Advanced Assessment and Remedial Planning for the Preschool Handicapped Child.

513-3 Organization, Administration, and Supervision in Special Education.

514-3 Simulation of Administrative Tasks in Special Education.

515-2 Itinerant and Resource Teaching in Special Education.

517-2 The Atypical Child and Social Agencies.

518-2 to 6 Workshop in Special Education.

580-3 Master's Seminar: Issues and Trends in Special Education.

582-2 Post-Master's Seminar: Remedial Models in Special Education.

583-2 Post-Master's Seminar: Program Coordination in Special Education.

584-2 Doctoral Seminar: Research in Special Education.

585-2 Doctoral Seminar: Evaluation in Special Education.

591-2 to 5 Independent Investigation.

594-1 to 6 Practicum in Special Education.

600-1 to 32 (1 to 16 per semester) Dissertation.

Speech Communication (Department, Major, Courses)

The Department of Speech Communication provides the undergraduate with a substantial background in the history, theory, and application of verbal and non-verbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and instructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide catholic and diverse opportunities for the study of and training for communication as personal perception and expression.

A graduate of Southern Illinois University at Carbondale with a major in speech communication will be expected to demonstrate the following competencies: proficient communication skills within large and small groups, a considerable ability to read and interpret the printed page, demonstrably well-practiced interpersonal skill, and an understanding of the theories and principles which are basic to the speech discipline.

These competencies may be demonstrated by completing any of the major programs described below and by receiving no grade lower than *C* in the following courses which are required in all specializations except public relations: GSC 200,

GSD 152 or 153, Speech Communication 221 or 380, 230, 261, 262, 325, and 370. Under certain circumstances, a student may elect to demonstrate a competency by passing a proficiency examination administered by the Department of Speech Communication.

Bachelor of Science Degree, College of Communication and Fine Arts

SPEECH COMMUNICATION MAJOR—COMMUNICATION ARTS AND STUDIES SPECIALIZATION

<i>General Studies Requirements</i>	45
Must include GSC 200, GSD 152 or 153	
<i>Requirements for Major in Speech Communication</i>	36
Speech Communication 221, 230, 261, 262, 325, 370	18
Electives in Speech Communication which must include at least three 400-level courses	18
<i>Electives</i>	39
<i>Total</i>	120

SPEECH COMMUNICATION MAJOR—ORAL INTERPRETATION SPECIALIZATION

<i>General Studies Requirements</i>	45
Must include GSC 200, GSD 152 or 153, GSE 103d (2 hours), GSB 202 strongly recommended	
<i>Requirements for Major in Speech Communication</i>	56
Speech Communication 221, 230, 261, 262, 325, 370, 390-3, 433, 471, 472, 474, 491-3	36
English literature courses	12
Courses to be determined in consultation with adviser	
Theater 203, 207, 213, 217	8
<i>Electives</i>	19
Recommended that electives be in speech communication, music, film, sociology, psychology, English, theater	
<i>Total</i>	120

SPEECH COMMUNICATION MAJOR—PUBLIC RELATIONS SPECIALIZATION

The public relations specialization is an interdisciplinary program designed with the assistance of the Public Relations Society of America.

Building upon the liberal arts and sciences required of all students in the general studies program, the curriculum provides fundamental knowledge in social science, business management, marketing, political science, and research methods, and in communication through all types of media. The broad coverage of these disciplines provides a sound preparation for careers and graduate studies in public relations and the several areas included. Through flexibility in the choice of restricted electives, the students are able to select courses in the field of their special interests in preparing for graduate work and specific career goals.

Membership in the Raymond D. Wiley Chapter of the Public Relations Student Society of America provides opportunities for internships, field trips, job placement, involvement in on- and off-campus public relations projects, and association with professional practitioners.

The active internship program enables selected students to obtain work-study experiences under the supervision of qualified practitioners in industrial, educational, and non-profit organizations. In most cases, academic credit is earned, and the student receives a stipend to defray living expenses.

<i>General Studies Requirements</i>	45
Must include GSB 202, 212, GSD 152 or 153	

<i>Requirements for Major in Speech Communication</i>	71
Speech Communication 326, 380, 381, 382, 480, 481	18
Journalism 300, 310, 311	9
Radio-Television 300m, 300p	8
Psychology 307	3
Administrative Sciences 301	3
Marketing 304, 363	6
Political Science 340	3
Accounting 210	3
Graphics	3
Design 322 or Journalism 315	
<i>Restricted electives</i>	15
Selected from speech communication, journalism, radio-television, administrative sciences, marketing, finance, economics, political science, psychology, sociology, English. Some recommended courses are: Speech Communication 390 (may be repeated to a total of 3 hours), 358, 362, 451; Journalism 361, 370, 372, 374, 376, 391; English 290, 390 or other approved English writing courses.	
<i>Internship</i> : Speech Communication 490-A-1 to 6. The internship practicum in public relations is open to selected students with consent of the instructor. Hours taken here apply against 15 hours of restricted electives or other substitutions approved by the instructor.	
<i>Typing</i> : Proficiency of 30 words per minute required.	
<i>Electives</i>	4
<i>Total</i>	120

Bachelor of Science Degree, College of Communications and Fine Arts or College of Education

SPEECH COMMUNICATION MAJOR—COMMUNICATION EDUCATION SPECIALIZATION	
<i>General Studies Requirement</i>	45
Must include GSB 202, 212, GSC 200, 203, GSD 152 or 153, GSE 201	
<i>Requirements for Major in Speech Communication</i>	48
Speech Communication 221, 230, 261, 262, 325, 370, 432	21
Mass media courses selected from the following: Radio-Television 300m, 300p, 467; Journalism 300, Speech Communication 452 ..	6
Theater 217, 354 or 402a	5
Speech Communication electives to be selected from the following courses with at least 8-9 hours at the 400-level: Speech Communication 390 (maximum of 2 hours), 326, 340, 362, 401 or 402, 430, 433 or 435, 441 or 443, 471 or 474 or 475	16
<i>Or</i>	
Speech Communication 221, 261, 262, 370, 432 plus nine hours from courses offered by the Department of Speech Communication including at least 3 hours at the 400-level	24
Eighteen hours in one department in the College of Communications and Fine Arts other than the Department of Speech Communication	18
Electives	6
<i>Professional Education Requirements (including Speech Communication 431)</i>	27
See Teacher Education Program, page 63.	
<i>Total</i>	120

Bachelor of Arts Degree, College of Liberal Arts

<i>General Studies Requirements</i>	45
Must include GSC 200 and GSD 152 or 153	
<i>Supplementary College Requirements (See page 70.)</i>	(4) + 8-14
<i>Requirements for Major in Speech Communication</i>	36
Speech Communication 221, 230, 261, 262, 325, 370	18
Speech Communication electives which must include at least three	
400-level speech communication courses	18
<i>Electives</i>	15-21
<i>Total</i>	120

Minor:

A 15-hour minor in speech communication should be planned in consultation with the chairman of the department or the undergraduate adviser. Students electing speech communication as a minor in a teacher education program must include Speech Communication 431.

Courses

Courses in speech communication are listed according to numerical order. However, the second digit in the course number indicates its locus in the speech communication curriculum, as follows:

- 00-09 Research Methods
- 10-19 Rhetoric and Criticism
- 20-29 Public Speech Communication
- 30-39 Speech Education
- 40-49 Language Behavior
- 50-59 Political Speech Communication
- 60-69 Interpersonal Speech Communication
- 70-79 Oral Interpretation
- 80-89 Organizational Speech Communication
- 90-99 Applied and Special Studies

221-3 Public Communication II. The components of effective speech, with actual preparation and presentation of several types of speeches. Prerequisite: GSD 153 or consent of instructor.

230-3 Introduction to Speech Education. Areas of speech education, their relevance and importance to the high school curriculum, and potential for prospective teachers. Practical information on content-focus in these areas. Restricted to students having nine or fewer hours in speech.

258-1 to 30 Work Experience. Credit given for work experience by students enrolled in the Department of Speech Communication. Such credit is granted upon approval of the undergraduate adviser.

261-3 Discussion and Conference. Principles and methods of discussion and conference participation and leadership. Current problems are used as material for discussion.

262-3 Interpersonal Communication II. Focuses on face-to-face interaction and inter-group relations by combining information about human communication and practice in communication. Utilizes the laboratory method for learning to establish and develop communicative relationship with others. Prerequisite: GSD 152 or consent of instructor.

310-2 Speech Composition. Rhetorical techniques of public address. Two major speeches prepared, with every possible refinement. Prerequisite: 221.

311-3 Introduction to Rhetorical Criticism. Designed to assist the student in developing the student's own critical method based largely on a study of past and present concepts of rhetorical criticism.

320-3 Intercultural Communication. (Same as Linguistics 320.) Examination of the elements and structure of intercultural and transracial communication in the United States. Designed to analyze and describe the interaction between social perception and expression as manifest in verbal and nonverbal behavior. Emphasis on the functional communication of minority groups. Prerequisite: GSD 152 or Speech 262 or consent of instructor.

325-3 Argumentation and Debate. Through the study of argument, evidence, reasoning

and oral advocacy this course seeks to insure competence in the ascertainment of truth by investigation and research and the establishment of truth through proof. The ultimate rationale for the course is the discovery and support of intelligent decisions.

326-3 Persuasion. The means of influencing individuals and groups through communication. Emphasizes the shaping of other's values, beliefs, attitudes and behavior primarily by the spoken word. Provides theoretical information about and practice in persuasive speaking, for sources and targets of persuasion.

340-2 Language and Speech: Introduction. Introduction to the language of speech, an interdisciplinary approach to the learning and use of language. The structure of speech interaction in relation to participants, situation and functions of communication. Emphasis on linguistic, psychological, sociological and developmental perspectives on language in speech communication.

358-3 Political Campaigns and Elections. (See Political Science 318.) Elective Pass/Fail.

361-3 Nonverbal Communication. Nonverbal factors that influence the communicative interaction among persons. Review research findings and conduct projects germane to non-verbal communication. Readings, discussions, and research projects. Prerequisite: 262 or consent of instructor.

362-3 Communication and Social Process. Introduction to the phenomenology of human communication and social process. Analysis and description of interpersonal communication in the development and operation of human communities. Special emphasis is given to the nature of persons, consciousness, and communication exchange in society.

370-3 Oral Interpretation II. Theory and practice in advanced interpretation techniques, with emphasis on the student as performer. Prerequisite: GSC 200 or consent of the instructor.

380-3 Business and Professional Speaking. A survey of organizational communication. Classical rhetorical theory, modern communication theory, general semantics fundamentals, and human relations. Composition and delivery of major speech. Briefing, interview, and conference techniques. Audiovisual aids. Class attends civic group luncheon. Prerequisite: GSD 153.

381-3 Public Relations Policy and Practice. Philosophy, principles, policies, and practice of public relations. Historical review of industrial, institutional, governmental, and agency PR; managerial and communicative functions; internal and external publics. Lecture, audiovisual media, and guest public relations practitioners. Prerequisite: junior standing.

382-4 Research Methods in Public Communication. An introductory survey of methods and techniques of audience analysis and public opinion research. Designed especially for public relations specialization. Instruction in the design of research tools, sample selection, interviewing, and the use of the computer for data analysis.

390-1 to 6 Applied Communication. Supervised individual and group performance in various communication arts. Emphasis on the practical application of verbal skills. May be repeated for credit. A maximum of six hours may be counted toward a speech major; a maximum of six hours toward degree requirements. Prerequisite: consent of instructor and department adviser.

401-3 Communication Theories and Models. An introduction to theory construction and model utilization in communication research. Critical analysis of existing communication theories in the social sciences as a basis for generating new models. Emphasis on the heuristic nature and function of the language/speech act paradigm in communication studies.

402-3 Empirical Research in Speech Communication. Principles of research design accompanied by a critical examination of research on oral communication. Prerequisite: 401 or consent of instructor.

421-3 to 9 (3,3,3) Studies in Public Address. Critical studies of speakers and issues relevant to social and political movements dominant in national and international affairs. A lecture, reading, and discussion course. Students may repeat enrollment to a total of nine hours. Prerequisite: for undergraduates, 311 or consent of instructor.

430-3 Speech in Elementary Schools. Survey of normal speech development with emphasis on the elementary school years. Concept of speech as skill to basic reading, writing, and spelling. Psychological and sociological variables affecting language as it relates to school learning. Speech experiences supportive of the child's linguistic, intellectual, and social development.

431-3 Speech in Secondary School. Philosophy of speech education, and effective teaching of speech through curricular and extra-curricular work. Prerequisite: twelve hours of speech.

432-3 Secondary School Forensic Program. Designed to evaluate and plan the proper role of forensics in the secondary school and to prepare the students for their tasks as teachers and administrators in that program. Not for graduate credit. Prerequisite: 325, GSC 200.

433-3 Creative Dramatics for Children. Materials, techniques, and procedures for conducting sessions in informal drama with emphasis upon its contribution to the total growth and development of the child. Includes lectures, observations, student participation. Prerequisite: concurrent enrollment in 490F-1 or consent of instructor.

435-3 to 6 (3,3) Topics in Creative Dramatics. An exploration of advanced theories and

techniques for conducting sessions in informal drama. Topics vary and are announced in advance. Students may repeat enrollment in the course, since the topics change. Lecture, discussion, class projects, school visitations.

440-4 Language Behavior I. Psycholinguistic approach to the study of language learning and the early use of language. Theories and research in normal acquisition and development of grammatical structures, basic semantic categories, and rules of use in speech. Application of theories and research in first language learning to acquiring second languages.

441-4 Language Behavior II. Applicability of psychological and linguistic theories to social psychological aspects of speech communication. Relation of speech to other developing behaviors with particular attention to theories of cognition. Study of psychological and sociological variables affecting the functions of language for individuals and societies.

442-3 Psychology of Human Communication. Nature, development, and functions of verbal and nonverbal behavior; application of psychological theories and research to the communication process in individuals and groups. Emphasis on the systemic nature of communicative behavior.

443-3 General Semantics. Formulations from the works of Alfred Korzybski and from neo-Korzybskian interpreters are presented. General semantics is discussed as an interdisciplinary approach to knowledge. Relationships are made to contemporary problems in human affairs.

444-3 Language of Young Children. For teachers of young children and students of language. Theory of the development of language with attention to maturational and environmental correlates. Study of children's spoken language encoding and decoding behavior in relation to development of secondary skills of reading and writing and to general cognitive development.

445-3 Semiology and Semiotic Communication. Advanced study of sign, signal, and symbol systems in the phenomenology of communication. Systematic analysis of the metatheory relationship between expression and perception as manifest in verbal and nonverbal communication systems. Emphasis on semiology as a communication theory in the human sciences. Some consideration of related theories such as structuralism, interspecies communication, human/machine communication, and general systems theory. Prerequisite: 340 or 361 for undergraduates, 401 or 440 for graduate students, or consent of instructor.

451-3 Political Communication. (Same as Political Science 418.) A critical review of theory and research which relate to the influence of communication variables on political values, attitudes, and behavior. Prerequisite: 358 or consent of instructor.

452-3 Interpersonal Communication and the Mass Media. A review, synthesis, and analysis of communication theory and research which deals with the process, interactive nature of interpersonal and mass channels of communication. Prerequisite: 401 or consent of instructor.

461-3 Laboratory in Interpersonal Communication I. Interpersonal communication is studied as human encounter. The philosophy and theoretical bases of existential phenomenological approaches to human communication are discussed. Projects are evolved by small groups that contribute to the understanding of human communication.

462-3 Laboratory in Interpersonal Communication II. Various theories of social and cultural change are explored. The role of interpersonal communication in the development of human consciousness is explicated. Projects are evolved by small groups that examine values and priorities of human nature and cultural nature.

465-3 Philosophy of Language. (See Philosophy 425.)

471-3 Oral Interpretation: Prose. The study of the prose form through analysis and performance. Prerequisite: 370, GSC 200 or consent of instructor.

472-3 Oral Interpretation: Poetry. The study of poetic form through analysis and performance. Prerequisite: 370, GSC 200 or consent of instructor.

474-3 Group Performance: Readers Theater. Theory and practice in constructing and staging the compilation script form. Prerequisite: 370, or consent of instructor.

475-3 Group Performance: Chamber Theater. Theory and practice in adapting and staging prose fiction. Prerequisite: 370 and 471, or consent of instructor.

480-3 Studies in Organizational Communication. Study of communication systems and behavior within organizations. Demonstrates the relevance of communication to management operations, networks, superior-subordinate relations, production, employee morale, and organizational climates through the study of theory and research.

481-2 Public Relations in Cases and Campaigns. Advanced course in selected case studies provided by the Public Relations Society of America and other sources. Student groups design actual or simulated public relations campaigns through the four steps of research, planning, communications, and evaluation. Prerequisite: 381 or consent of instructor.

490-1 to 6 Communication Practicum. A supervised experience utilizing communication skills in a professional or career setting. Emphasis on the development of applied performance skills in the following areas: (a) Public Relations, (b) Communication Studies, (c) Interpersonal Communication, (d) Oral Interpretation of Literature, (e) Forensic Activities, (f) Creative Dramatics, (g) Political Communication, (h) Organizational Communication, (i) Language Behavior, (j) Instructional Communication. May be repeated for credit. Under-

graduates are limited to a total of six hours and graduate students to a total of three hours to be counted toward degree requirements. Prerequisite: consent of instructor and departmental adviser.

491-1 to 3 Independent Study in Communication. Readings, creative projects, or writing projects focusing on a theoretical study of communication. The independent study should normally be completed in one semester under the tutorial supervision of a faculty sponsor. Not for graduate credit. Prerequisite: twelve hours of speech, consent of instructor and departmental adviser.

492-2 to 8 Workshop in Oral Interpretation. Summer offering concentrating in specialized areas of oral interpretation.

493-3 to 9 (3, 3, 3) Special Topics in Communication. An exploration of selected current topics in communication arts and studies. Topics vary and are announced in advance; both students and faculty suggest ideas. Students may repeat enrollment in the course, as the topic varies.

502-3 Seminar: Empirical Communications Research.

503-3 Seminar: Non-Quantitative Research Methods.

510-3 to 6 (3, 3) Seminar: Rhetoric and Communication.

526-3 Seminar: Studies in Persuasion.

531-3 Seminar: Speech Education.

539-3 Speech Communication at University Level.

540-3 Seminar: Language Behavior.

561-3 to 6 (3, 3) Studies in Small Group Communication.

562-3 Philosophy of Human Communication.

571-3 Theoretical Perspectives in Interpretation.

572-3 Critical Perspectives in Interpretation.

574-3 to 6 (3, 3) Studies in Interpretation.

593-1 to 3 Research Problems in Communications.

598-0 Proseminar in Human Communication.

599-1 to 6 Thesis.

600-1 to 36 (1 to 16 per semester) Dissertation.

Speech Pathology and Audiology (Department, Major, Courses)

The program in speech pathology and audiology has as its objective the training of qualified personnel to work with people impaired in either speech or hearing. The undergraduate curriculum is broad in scope and gives the student the necessary background for the professional program offered at the master's level. Both State and national certification require the M.S. degree. Positions in this field are available in the public schools, colleges and universities, and in highly specialized public or private clinics, hospitals, and agencies.

The program in speech pathology and audiology features two specialization tracks, one for students wishing to pursue careers in public or private clinics, and the other for those who wish to seek employment in the public schools. Students may also plan a special major program by following procedures outlined in the Undergraduate Catalog.

Clinical experience is obtained through work at the University's Clinical Center, the public schools in student teaching, special summer programs, the Marion Veterans Administration Hospital, A. L. Bowen Children's Center, the Anna State Hospital, and area hospitals and other community agencies.

Students are encouraged to plan programs of study to meet academic and practicum requirements for the Certificate of Clinical Competence of the American Speech and Hearing Association and the Standard Special Certificate—Certificate in Speech and Language Impaired. Planning at the bachelor's level will facilitate completion of ASHA and State of Illinois certification requirements in conjunction with the master's degree program.

Bachelor of Science Degree, College of Communications and Fine Arts

SPEECH PATHOLOGY AND AUDIOLOGY MAJOR—CLINICAL SPECIALIZATION

General Studies Requirements 45

GSA, GSB, GSC	30
GSA: 9 hour minimum from 3 different departments including 115 and 209	
GSB: 10 hour minimum from 3 different departments including 202, 203, 206	
GSC: 9 hour minimum from 3 different departments	
GSD 101, 117, 107, and 152 or 153	11
GSE: Health and physical education	4
<i>Requirements for a Major in Speech Pathology and Audiology</i>	61
Psychology 211, 301, 305	10
Psychology: 12 hours selected from 307, 309, 311, 314, 411, 451	12
Rehabilitation 406	3
Speech Pathology and Audiology 200, 203, 205, 302, 303, 314, 316, 318, 319, 401, 419, 494, 495, and 496	36
<i>Electives</i>	14
<i>Total</i>	120

SPEECH PATHOLOGY AND AUDIOLOGY MAJOR—PUBLIC SCHOOL SPECIALIZATION

A student in the College of Communications and Fine Arts who plans to be a public school speech and language clinician in Illinois, thereby needing to prepare to meet the requirements for the Standard Special Certificate—Certificate in Speech and Language Impaired, should follow the program of course requirements listed below.

This Bachelor of Science degree program of study does not culminate in certification by either the State of Illinois or the American Speech and Hearing Association. The undergraduate public school program qualifies the student for graduate study providing all conditions for admission to the Graduate School have been met. Students must maintain the stipulated grade point averages for entrance to both student teaching and the Graduate School. Students pursuing the clinical specialization program are not required to take the education courses.

<i>General Studies Requirements</i>	45
Same required courses as listed under the clinical specialization.	
<i>Requirements for a Major in Speech Pathology and Audiology</i>	49
Psychology 211, 301, 305	10
Rehabilitation 406	3
Speech Pathology and Audiology 200, 203, 205, 302, 303, 314, 316, 318, 319, 401, 419, 494, 495, and 496	36
<i>Professional Education Requirements</i>	24
Education 304a,c, or e. See Teacher Education Program, page 63.	
<i>Electives</i>	2
<i>Total</i>	120

Bachelor of Science Degree, College of Education

A student in the College of Education who wishes to become a speech clinician in the public schools should follow the plan listed above, in addition to any special requirements for a major in the College of Education.

Courses

100-0 to 1 Speech Clinic: Therapy. For students with speech and hearing deviations who need individual help. Prerequisite: consent of instructor.

104-3 Training the Speaking Voice. For those students who desire to improve their voice and articulation.

200-3 Phonetics. Instruction in the use of phonetic symbols to record the speech sounds of midland American English, with emphasis on ear training, and a description of place and manner of production of these sounds.

203-3 Introduction to Speech Science. An introduction to the science of general speech including the history of research in the field and significant experimental trends in the future. Open to all students.

205-3 Introduction to Speech Pathology. A general survey course devoted to a discussion of the various problems considered to be speech and hearing disorders with special emphasis on basic etiological classification schemes and their incidence in the current population. Opportunities for directed observation.

302-3 Phonological Development and Disorders. A general introduction to the phonological development in children on a normative basis. In addition to introducing the student to the classical studies in articulatory development, this course provides a general exposure to the implications of classical phonetic theory, coarticulatory theory and distinctive features theory as a framework for therapy and research. Prerequisite: 200 or concurrent enrollment.

303-3 Language Development and Disorders. Presentation of the progressive stages of language development in the areas of syntax and semantics. The student is acquainted with normal developmental processes and introduced to identification and remediation of therapeutics with children from ages three to twelve. Theoretical considerations and terminology related to traditional structural and transformation grammars are introduced as tools for interpreting the acquisition processes. Prerequisite: 200 or concurrent enrollment.

314-3 Anatomy and Physiology of the Speech and Hearing Mechanism. Structure and function of the normal speech and hearing mechanism.

316-3 Introduction to Audiology and Audiometry. Basic orientation to the professional field of audiology, its history and its goals; basic acoustics, the phylogeny, anatomy and physiology of the human ear, and significant pathologies of the ear. Prerequisite: junior standing.

318-3 Parameters of Voice. Physio-acoustic parameters of voice quality variables evidenced in verbal communication. Lectures and demonstrations emphasize basic information necessary to study for the treatment of voice disorders. Prerequisite: 205.

319-3 Stuttering. Deals with diagnostic and therapeutic techniques for the understanding and treatment of stuttering.

401-3 Diagnostic Procedures in Speech Pathology. A general introductory course devoted to discussion of the role of the speech and hearing clinician as a differential diagnostician. Special emphasis is placed on correlating information obtained from the oral-peripheral examination, articulation and language evaluation, audiometric and case history information in constructing the initial evaluation report. Prerequisite: 200, 314.

407-2 Communicative Disorders: Cerebral Palsy. An introduction to cerebral palsy as a disorder, with an emphasis on etiology, problems, and approaches to therapy. Prerequisite: 205, 314, or consent of instructor.

408-2 Communicative Disorders: Cleft Palate. An introduction to the ontology and teratology of cleft palate, problems, of personal and social adjustments, and principles of therapy. Prerequisite: 205, 314, 318, or consent of instructor.

419-3 Communication Problems of the Deaf and Hard of Hearing. Objectives and techniques for the teaching of lip reading, speech conservation, and auditory training. Prerequisite: 316 or consent of instructor.

420-3 Basic Audiometric Evaluation. Principles and procedures of audiometric evaluation: pure-tone threshold testing; techniques and standards for clinical calibration of the audiometer; clinical masking procedures; materials and procedures for speech audiometry; hearing assessment of infants and children. Prerequisite: 316.

428-3 Speech and Language Disorders and the Classroom Teacher. Etiology and therapy of common speech defects. May be taken by all inservice teachers, seniors, and graduate students in education.

431-1 to 6 (1 to 3, 1 to 3) Biofeedback Communication. An investigation into the experimental approaches for the study of the phenomena of speech. Evoked potential and signal averaging techniques, psychophysiological methodology. Laboratory experience with various biofeedback instrumentation, EMG, EEG, temperature ECG, etc. Open to non-majors.

438-2 Problems of Communication and the Process of Aging. Reviews problems of communication related to the aging process and examines relevant diagnostic and therapeutic techniques. For non-majors only. Prerequisite: senior or graduate standing.

491-1 to 4 (1 to 2, 1 to 2) Individual Study. Activities involved shall be investigative, creative, or clinical in character. Must be arranged in advance with the instructor, with consent of the chairman. Prerequisite: consent of chairman.

- 494-1 to 2 Clinical Practice: Phonological Disorders.** Supervised clinical practicum in articulation. Emphasis will be upon therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 302.
- 495-1 to 2 Clinical Practice: Language Disorders.** Supervised clinical practicum in language. Emphasis will be upon therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 303.
- 496-1 to 2 Clinical Practice: Hearing Disorders.** Supervised clinical practicum in hearing disorders. Emphasis will be upon rudimentary clinical procedures in audiology. Prerequisite: 316, 419, or consent of instructor.
- 497-1 to 2 Clinical Practice: Hearing Diagnostics.** Supervised clinical practicum in hearing diagnostics. Emphasis will be upon diagnostic techniques and preparation of reports. Prerequisite: 316 and 420.
- 500-3 Research Design in Speech Pathology and Audiology.**
- 503-3 Laboratory Instrumentation in Speech Pathology and Audiology.**
- 505-3 Phonological Acquisition in Children.**
- 507-3 Modern Techniques for the Syntactically Impaired.**
- 510-3 Stuttering: Behavior Assessment and Therapy.**
- 512-3 Voice Disorders.**
- 517-3 Psycholinguistic Correlates of Verbal Impairment.**
- 521-3 Advanced Audiology II.**
- 525-3 Amplification for the Hearing Impaired.**
- 526-3 Industrial and Community Hearing Conservation.**
- 528-3 Seminar: Physio-and Psycho-Acoustics of the Ear.**
- 529-3 Seminar: Experimental Audiology.**
- 533-3 to 6 (3, 3) Seminar: Speech Science and Experimental Phonetics.**
- 536-3 Seminar: Administration of Speech and Hearing Programs.**
- 540-3 Neuromuscular Disorders of Communication.**
- 541-3 Neuropsychological Disorders of Communication.**
- 544-3 Seminar: Phonology.**
- 548-3 Stuttering: Behavior Theory and Research.**
- 550-3 Seminar: Speech Pathology and Audiology.**
- 590-1 to 4 (1 to 2 per semester) Readings in Speech Pathology and Audiology.**
- 593-1 to 3 Research Problems in Speech Pathology and Audiology.**
- 594-1 to 2 Clinical Practice: Voice Disorders.**
- 595-1 to 2 Clinical Practice: Fluency Disorders.**
- 596-1 to 2 Clinical Practice: Cerebral Palsy.**
- 598-1 to 3 Internship in Speech Pathology and Audiology.**
- 599-1 to 6 Thesis.**
- 600-1 to 32 (1 to 16 per semester) Dissertation.**

Technical Careers (School, Program, Courses)

The Bachelor of Science degree in the School of Technical Careers is specifically designed for the student who has entered an educational or career path for which there is no existing baccalaureate program. It accommodates those who have begun or completed associate degree occupational programs in any post-secondary institution, by allowing full transfer of credit; those who wish to turn military training into viable civilian credentials; and those with extensive occupational experience who wish to upgrade their educational status. Provision is made to recognize many forms of previous educational and occupational experience for credit toward the degree.

There is no single program or major leading to this degree. The only requirements are those minimums in General Studies and total hours for graduation set by the University.

This degree is designed for the student whose educational and career goals are not met in any other university program. It is totally flexible within the limits of University requirements previously described, and each program is individually designed and titled for each student. The student designs the program in consultation with advisers who may be university faculty members or laymen knowledgeable in the career field which the student has chosen.

Because these baccalaureate programs are completely individualized, there is no formal list of requirements applicable to all students. Persons interested in the

Bachelor of Science degree in the School of Technical Careers should contact the chairman, baccalaureate division, School of Technical Careers, for additional information.

Courses

101-2 Business Correspondence. To equip students for effective letter writing so that they can compose letters quickly, easily, and efficiently as a basic goal of this course. It will help the student form good habits that will facilitate adaptability in the business world. The student will strive to develop naturalness, courtesy, tact, honesty, and a positive attitude in the construction and use of business correspondence. Lecture and individualized instruction two hours.

102-2 Technical Writing. To successfully complete this course, students should be proficient in particular writing techniques (technical description, definition, classification, abstracting, etc.) and follow through a library research project in their individual technical fields. Lecture two hours and individualized instruction.

103-2 Fundamentals of Mathematics. This course is pre-technical level intended for those who have had no high school algebra or whose scores on the School of Technical Careers Mathematics Placement Test indicate a need for it. The course will enable the student to perform the fundamental operations with integers, common fractions, and decimals; to solve problems involving ratio, proportion, and percent; to use measurement concepts and geometric formulas to compute areas, volumes, and perimeters; and to perform basic algebraic operations. Semi-programmed instruction. Four hours per week.

104-2 Business Mathematics. Upon successful completion of this course, the student should be able to perform a wide range of business procedures for which mathematics is required and have the mathematical skills needed by a student preparing to enter business employment. The topics include percent, taxes, insurance, depreciation and overhead, interest, and retail mathematics. Lecture-discussion two hours.

105-4 (2,2) Technical Mathematics. Will enable the student to solve problems within the context of engineering technologies. (a) Emphasizes the use of algebraic equations and geometric relationships and formulas. Lecture-discussion, four hours per week for eight weeks. (b) Emphasizes the application of trigonometric relationships to problems in applied technologies. The use of electronic calculators is encouraged when appropriate. Lecture-discussion, four hours per week for eight weeks. Prerequisite: one year of high school algebra or STC 103.

107-4 (2, 2) Applied Physics. Places emphasis on basic and applied physics at a level consistent with technical education objectives. The student will learn laws and principles, solve problems, and perform experiments pertaining to (a) mechanics and heat and (b) light and electricity. Lecture three hours. Laboratory two hours. Prerequisite: high school algebra or 103.

108-2 Chemistry of Fuels and Lubricants. The student will demonstrate the ability to analyze fuels and lubricants and detect impurities and contaminants. (Lecture two hours, Laboratory three hours. Eight weeks.)

115-5 (2, 3) Introduction to Chemistry. (a) Inorganic. The student will study the structure of matter, including a survey of common elements and compounds and the changes during chemical reactions, and will also study inorganic bases, salts, solutions, the periodic tables, equation balancing, and metric tables. (Lecture three hours. Laboratory two hours. Eight weeks.) (b) Biological. The student will study the chemistry of organic compounds, carbohydrates, proteins, and lipids relating them specifically to body functions. The student will also study the chemistry of digestion, metabolism, respiration, blood enzymes, hormones, and vitamins. (Lecture four hours. Laboratory three hours. Eight weeks.) Must be taken in a, b sequence.

118-2 Applied Calculus. Upon successful completion of this course, the student will be able to find derivatives and integrals of algebraic expressions, and will use this working knowledge of calculus as a tool to solve technical problems in the mechanical, civil, and electrical-electronic fields; to converse intelligently with engineers and scientists who speak the language of calculus; and to read technical articles written in that language. Lecture-discussion two hours. Prerequisite: 105 or Mathematics 111.

141-3 Introduction to Physiology and Human Anatomy. The student will survey the functions and structures of the nine basic body systems: digestive, respiratory, skeletal, muscular, excretory, reproductive, endocrine, circulatory, and nervous. Lecture three hours.

153A-2 Oral Reporting. Successful completion of this course equips the student to construct and execute effective informative oral communications, recognize and use basic methods of logical organization, make a logical and coherent oral progress report, and take a more positive role in the world of business and industry. Lecture and individualized instruction, four hours per week. Eight weeks.

153B-2 Conference Methods. Upon successful completion of this course, the student will be able to identify and use basic problem solving methods, take a positive role in a typical business conference, and effectively manage the mechanics of dyadic and public oral com-

munications within the typical business framework. Lecture, individualized instruction, and special projects, four hours per week. Eight weeks.

199-1 to 10 Individual Study. Provides first-year students with the opportunity to develop a special program of studies to fit a particular need not met by other offerings. Enrollment provides access to the resources and facilities of the entire institution. Each student will work under the supervision of a sponsoring staff member. Prerequisite: approval of the sponsor, program supervisor, and division chairman.

200-2 Primary Flight Theory. Prepares the beginning aviation student for the FAA Private Pilot Written Examination. Consists of 48 classroom hours of instruction in aerodynamics, FAA regulations, primary navigation, use of computer, weather, and radio navigation.

201-2 Flight—Primary. Prepares the beginning student in flight to pass the practical examination (flight test) for the Private Pilot Certificate. Consists of 45 hours of flight training, which includes 30 hours of flight instruction, five of which is in a simulator; and 15 hours of solo flight. Each training flight is also preceded by a briefing by the instructor and a post-flight critique. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

202-2 Flight—Basic and Intermediate Theory. Continuation of ground school above the primary level. Course consists of 32 hours of classroom instruction in Federal Aviation Regulations pertaining to operations relating to commercial flight, aerodynamics, safety, weather, and the safe operation of aircraft.

203-1 Flight—Basic. Beginning course in preparation for the Commercial Certificate. Course consists of 50 hours of flight training. Includes pre-flight briefing and post-flight critique by the flight instructor. Of the 50 hours, ten hours are dual flights and 40 hours are solo flights. Includes dual night flights and 20 hours of solo cross-country. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

204-1 Flight—Intermediate. Continuing preparation for the Commercial Certificate. Consists of 50 hours of flight training. Includes preflight and post-flight briefing by instructor. Includes ten hours of dual flight instruction in an airplane with retractable gear, flaps, and a controllable propeller, five hours of night flights, twenty hours of solo cross-country, and ten hours of solo practice on advanced maneuvers.

205-2 Flight—Instrument Theory. Course is directed to the theory of flight by instrument. Consists of thirty-two hours of classroom instruction in Federal Aviation Regulations pertaining to instrument flight, navigation by radio aids, aviation weather, and function, use, and limitations of instruments required for instrument flight.

206-2 Flight—Instrument and Advanced. This flight course will complete requirements for the Commercial Certificate, and will consist of 45 hours. Included in the 45 hours are 20 hours of instrument flight instruction in an airplane, 15 hours in an instrument simulator, five hours dual on flight maneuvers, and five hours of solo practice on maneuvers required to pass an FAA commercial flight test. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

207-1 Flight—Multi-Engine Operations. Prepares the student for the FAA Multi-Engine Rating (airplane). Includes ten hours of flight training in multi-engine aircraft; and ten hours of individual ground instruction. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

210-4 (2,2) Job Orientation and Analysis. (a) Special instructional sessions offered on personality, clothing, job application, and professional ethics. Preparation of a portfolio consisting of a personal data sheet, an analysis of prospective employing firms, sample letters of application, and an acceptance or refusal. Practice in being interviewed by representatives of business and industry. (b) Students will be required to discover their interests in career opportunities, to explore these fields, and to discover job opportunities in their interest areas. Lecture four hours. Need not be taken in sequence.

215-6 (3,3) Drafting Graphics. Use of drafting instruments, development of lettering and linework; geometric construction, orthographic projections, sections, reflected plans, pictorial drawings, perspective, shades and shadows, and their adaption to print reading and production. (a) Instruments, lettering, linework, geometric construction, orthographic projections, sections, reflected plans, shades and shadows, non-perspective pictorial drawings. One hour lecture, five hours lab. Taken concurrently with Interior Design 231. (b) Perspective drawing methods, both interior and exterior with emphasis on interior perspectives including Klok Board, direct measurement, Lockard freehand perspective, geometric relationships, and shades and shadows and reflections in perspective drawings. One hour lecture, five hours laboratory. Must be taken in a, b sequence.

232-3 Labor-Management Problems. Students will gain a general understanding of the economic situation of which labor-management problems represent a sub-set. They will develop a perspective on the evolution of labor relations in the United States economy and on how the interaction of labor and management differs throughout the world. The collective

bargaining section introduces the student to the techniques of bargaining used by labor and management in their ongoing interactions. Lecture three hours.

258-1 to 30 Work Experience Credit. Credit granted for job skills, management-worker relations and supervisory experience for past work experience while employed in industry, business, the professions, or service occupations. Credit will be established by departmental evaluation.

259-1 to 60 Occupational Education Credit. A designation for credit granted for past occupational educational experiences related to the student's educational objectives. Credit will be established by departmental evaluation.

299-1 to 16 Individual Study. Provides students with opportunity to develop a special program of studies to fit a particular need not met by other offerings. Enrollment provides access to the resources and facilities of the entire institution. Each student will work under the supervision of a sponsoring staff member. Prerequisite: approval of the sponsor, program supervisor, and division chairman is required.

300-2 Flight-Instructor (Airplane). Prepares the commercial pilot for an FAA Flight Instructor Certificate. Includes 25 hours of dual flight training and 40 hours of specialized ground instruction. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

301-1 Flight-Instructor (Airplane-Multi-Engine). This course consists of five hours of dual flight instruction and 15 hours of classroom instruction. Prepares the holder of a flight instructor certificate for the addition of the multi-engine flight instructor rating. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

302-1 Flight-Instructor (Airplane Instrument). Designed to prepare the flight instructor to teach instrument flying, and to acquire the Instrument Flight Rating. Course consists of ten hours of dual flight instruction and 25 hours of classroom instruction. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

319-1 to 15 Occupational Internship. Each student will be assigned to a University approved organization engaged in activities related to the student's academic program and career objectives. The student will perform duties and services as assigned by the perceptor and coordinator. Reports and assignments are required to be completed by the student. Hours and credits to be individually arranged. Mandatory Pass/Fail.

320-1 to 10 Work Study Internship. Provides work-study students with an opportunity to participate in an on-campus work experience related to their academic program and career objectives. Hours and credits are to be individually arranged. Mandatory Pass/Fail.

321-3 Seminar in Technical Careers. The purpose of this course is to allow those School of Technical Careers baccalaureate students who have had little or no experience within their chosen careers to become acquainted with the current state of the professions to which they aspire. The object is to help students prepare themselves for maximum competitiveness within the job market through awareness of existing job opportunities, knowledge of job requirements, and selection of course work appropriate to meet specifications of available positions.

350-1 to 32 Technical Career Subjects. In-depth competency and skill development and exploration of innovative techniques and procedures used in business, industry, professions, and health service occupations offered through various workshops, special short courses, and seminars. Hours and credit to be individually arranged. Prerequisite: consent of instructor.

370-3 Airport Planning. To acquaint the student with the basic concepts of airport planning and construction, as well as an investigation of various community characteristics and resources.

371-3 Regulation of Air Transportation. A study of the various regulatory agencies of the industry and their functions.

372-3 Airport Management. A study of the operation of an airport devoted to the phases of lighting, fuel systems, field marking, field buildings, hangars, and surrounding community.

373-3 Airline Management. A study of the administrative aspects of airline operation and management including a detailed study of airline organizational structure.

374-3 Fixed Base Operation. A study of a general aviation airport including such activities as Fixed Base Operations, Air Taxi Operations, Flight and Ground School, and other revenue producing activities.

380-3 Orientation to Allied Health Professions. Study of the various existing and evolving health care professions and how they fit into the overall health care field. An analysis is made of the educational, personal, certification, and licensure requirements of the various professions.

381-3 Health Care Management. A study of the principles of effective management techniques including planning, decision making, organizing, budgeting, communication, and direction.

382-3 Health Economics. An analysis of the economics of health care in the United States and its effect on society and the health care profession.

384-3 Health Facilities and Equipment Management. Prepares health care adminis-

trators with the necessary management tools to assure comfort, safety, and well-being of patients, hospital personnel, and visitors, and to focus their attention on sound maintenance management practices, materials procurement, storage and preservation, records keeping, and the utilities systems needed in a health care facility.

385-3 Fiscal Aspects of Health Facilities. An introduction to the fiscal problems encountered in the administration of health care facilities.

386-3 Fiscal Aspects of Aviation Management. An introduction to the fiscal problems encountered in the administration of aviation facilities.

387-3 Fiscal Aspects of Fire Service. An introduction to the fiscal problems encountered in the administration of fire service facilities.

388-3 Legal Aspects of Health Care. To supply the student an awareness of the legal requirements affecting health care facilities. The course will emphasize the basic law of contracts, consents, records, personnel, liabilities, privacy, and other routine functions. Successful students acquire an understanding of the need for legal counsel. Lecture three hours.

400-1 Flight-Airline Transport Pilot. Prepares the commercial pilot for the FAA Airline Transport Pilot Certificate. Includes 40 hours of ground instruction and 20 hours of flight training in single-engine or multi-engine aircraft. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Not for graduate credit.

410-3 Fire Prevention and Inspection. Laws and regulations affecting fire prevention; administering building and fire codes; interpreting building, fire prevention, and state fire marshall codes; and inspection procedures. Not for graduate credit.

411-3 Fire Insurance Rating. Analysis of fire hazards for computing fire insurance rates. Actuarial basis of rating schedules with particular emphasis on the analytic system for measurement of relative fire hazard. Not for graduate credit.

421-3 Preprofessional Seminar in Technical Careers. Introduces students to the various elements involved in obtaining a position in their chosen career field. Topics included are: personal inventories, placement services, employment agencies, interviewing techniques, resumes, letters of application, references, and employment tests. Each student will develop a portfolio including personal and professional information related to individual career goals. Not for graduate credit. Prerequisite: enrollment in School of Technical Careers baccalaureate program or consent of instructor. Elective Pass/Fail.

Technology (Department)

Two degree programs are available in technology. One program leads to the Bachelor of Science degree with a major in engineering technology (see Engineering Technology) with specialization in one of three areas: civil engineering technology, electrical engineering technology, or mechanical engineering technology. The other program leads to the Bachelor of Science degree with a major in industrial technology (see Industrial Technology).

Engineering technology courses contain topics related to the design and development of products. Industrial technology courses contain topics related to the manufacture and distribution of products.

The present technological society has increased the demand for new types of personnel known as technologists. A technologist utilizes established methods to achieve improvements in existing designs and systems. Technologists should be knowledgeable in the state of the art of a particular technology, capable of utilizing handbooks and other forms of codified information with skill and discrimination, and sufficiently versed in mathematics and science to recognize sound procedures.

The technology programs are flexible enough to provide the means whereby a graduate of a two-year occupational program can obtain a bachelor's degree in a minimum length of time. The industrial technology program provides credit to individuals for related work experience outside the institution.

The programs are designed to provide the necessary training for entry into employment upon the completion of the baccalaureate degree. Opportunities for advanced study are available in business-related fields or in education.

Theater (Department, Major, Courses)

The Department of Theater has as its objective the continuing development of a

program blending the academic and practical aspects of the discipline. Through such a balance it seeks to serve its students on as highly an individualized yet integrated plane as is possible. Traditional as well as interdisciplinary specializations are fostered in acting-directing, design-technical, playwriting-dramatic literature, and dance; and in individualized programs combining theater with studies in music, speech, television, cinema, art, and the humanities. Coordinated with the academic programs is a broad schedule of productions including musical productions, children's theater plays, original works, dramas, and numerous experimental and laboratory works. This production schedule is extensive enough to allow students opportunity to design sets, lights, costumes, and to write, act and direct for these productions.

Students in the department have the opportunity to become involved with the functions of two organizations: Southern Players and Southern Laboratory Theater. These two organizations allow students to develop their particular craft within the realm of theater. Direct practical involvement is required of all students. Through the various aspects of production, students not only have the opportunities of learning their craft and blending their study of theory, but they also are exposed to experiences that carry them beyond local limitations. Work with visiting artists, involvements with the department's touring program, and service with the surrounding community, all contribute to a potential success in the more catholic world of theater that follows completion of the formal educational work.

Bachelor of Science Degree, College of Communications and Fine Arts

The following requirements are established for four areas of specialization: acting-directing, design-technical, playwriting-dramatic literature, and dance. Each area of specialization has a core curriculum, common in the first three areas, a specialized curriculum, and a limited number of electives. Since the core curriculum for dance is different from that of the other three areas it is listed separately.

<i>General Studies Requirements</i>	45
GSC 203, 365	6
GSD 152	2
<i>Requirements for Major in Theater</i>	75
Theater Core Curriculum	42
Theater 354a, b, c (select two)	6
Theater 211 a, b, c, 207, 217, 311, 322, 402a	25
Theater 308a, c, d (2 hours each)	6
Theater 308 (elective)	2
English 460, 465, or 468	3
Theater Specialization (Requirements listed below)	33
<i>Total</i>	120

THEATER MAJOR—ACTING-DIRECTING SPECIALIZATION

<i>Theater 203, 213, 305, 317a,b, 402b, 417</i>	15
<i>Theater Electives</i>	3
<i>Recommended electives from courses below</i>	15
Art 204, Speech Communication 471 or 472, English 460 or 462 or 468 or 471 or 472, Radio-Television 489, Philosophy 460	
<i>Total</i>	33

THEATER MAJOR—DESIGN-TECHNICAL SPECIALIZATION

<i>Theater 412a, 414, 432, 438</i>	11
<i>Electives from courses below</i>	8

Theater 305, 307, 318, 412b, 415, 418, or from other departments with departmental adviser's approval

<i>Related electives from courses below</i>	6
Interior Design 381, 382, Clothing and Textile elective courses approved by the departmental adviser	
<i>Electives</i>	8
	<hr/> 33

THEATER MAJOR—PLAYWRITING-DRAMATIC LITERATURE SPECIALIZATION

<i>Theater 411a,b, 438, 402b</i>	12
<i>English 460, 462, 464, 465 (select two)</i>	6
<i>Psychology 305</i>	3
<i>Theater Electives</i>	6
<i>Electives</i>	6
	<hr/> 33

THEATER MAJOR—DANCE SPECIALIZATION

<i>General Studies Requirements</i>	45
GSC 203, 365	6
GSD 152	2
<i>Requirements for Major in Theater</i>	58-67
Theater 354a,b,c (Select two)	6
Theater 211a, b, c, 207, 217, 402a and 308a, c, h	19
Theater 308 electives	2
Theater 322	1-10
Dance Specialization	30
Theater or Physical Education 209, 213, 273a,b, 312, 313, 379, 416	18
Theater or Physical Education 230a, b, c, and 240a, b, c, (4 hours each)	8
Theater or Physical Education 230 or 240 series (any sequence)	4
<i>Electives</i>	8-17
<i>Total</i>	<hr/> 120

Bachelor of Arts Degree, College of Liberal Arts

<i>General Studies Requirements</i>	45
GSC 203	3
GSD 101 and one of GSD 117, 118, or 119	5
GSD 152	2
GSD 107 or equivalent or GSD 113 and either 110 or 112	4
<i>Supplementary College Requirements (See page 70.)</i>	(4) + 8-14
<i>Requirements for Major in Theater</i>	46
Theater Core Requirements	28
Theater 203, 207, 211a, b, c, 217, 311	14
Theater 317a, 402a, 438	8
Theater 354a and either b or c	6
Theater Electives	9
English 460, 465, 468, 471, 472 (Choose three)	9
<i>Electives (Must be approved by the Department of Theater)</i>	15-21
<i>Total</i>	<hr/> 120

Minor, College of Liberal Arts

<i>Requirements for Minor in Theater</i>	19
GSC 203	3
Theater 211a, 217, 402a, 438	10
Theater 354a, b, c (select two)	6

Minor, College of Communications and Fine Arts:

<i>Requirements for Minor in Theater</i>	17
Theater 207, 211a, 217, 311, 402a	11
Theater 354a, b, c (select two)	6
<i>Requirements for Minor in Theater with Specialization in Dance</i>	24
GSC 203	3
Theater 230a, b, 240a, b, 312, 313, 379, 416	19
Theater 309a or b	2

Courses

- 203-2 Voice and Diction.** Principles and practice in personal vocal and articulatory development and control. General group drills in phonation, resonance and vocal variety; drills for clarity and ease in articulation. For specific vocal needs; individual exercises, coaching, and critical comment; leading to increased effectiveness in formal reading and speaking situations. Elective Pass/Fail.
- 207-2 Fundamentals of Theatrical Design.** Graphic media and workshop exercises acquaint students with the problems encountered by the director, scene designer, costumer, and lighting director in providing a suitable environment, by visual means, for the actor. Elective Pass/Fail.
- 209-1 Rhythmic Analysis.** (Same as Physical Education 209.) The analysis of rhythm as related specifically to motor learning. Prerequisite: Physical Education 115f, h.
- 211-6 (2,2,2) Staging Techniques.** An introductory course in the principles, procedures, and practice of theatrical production including experience in conjunction with departmental presentations (a) Basic methods of construction and handling scenery. Lecture two hours, laboratory two hours plus crew assignments. (b) Basic techniques of handling stage lighting instruments and electricity. Lecture two hours, laboratory two hours plus crew assignments. (c) Basic techniques of constructing and handling stage costume. Lecture two hours, laboratory two hours plus crew assignments.
- 213-2 Stage Movement.** (Same as Physical Education 213.) Experiences in movement and improvisation for the performing artist.
- 217-2 Acting.** The actor's instrument: jargon and geography of the stage, concentration/relaxation exercises, improvisation, play reading from the actor's point of view. Elective Pass/Fail.
- 230A-2 Beginning Technique of Classical Ballet.** (Same as Physical Education 230A.) Beginning classical ballet technique with emphasis on side and centre practice; alignment and ballet vocabulary. Leotard, tights, and ballet slippers required.
- 230B-2 Beginning Technique of Classical Ballet.** (Same as Physical Education 230B.) Beginning classical ballet technique at the intermediate level with emphasis on alignment, centre practice, and individual technical weakness. Prerequisite: 230A or consent of instructor.
- 230C-2 to 12 Beginning Technique of Classical Ballet.** (Same as Physical Education 230C.) Beginning classical ballet technique at the advanced level. Emphasis placed on centre practice and classical stylization with special attention paid to individual technical weakness. Prerequisite: 230B or consent of instructor.
- 240A-2 Beginning Techniques of Contemporary Dance.** (Same as Physical Education 240A.) Introduction to the basic concepts of dance as a root movement experience in all life. Emphasis placed on proper body alignment, proper mechanics of breath and phrasing, vocabulary and terminology of the art form, improvisation and creative movement.
- 240B-2 Intermediate Techniques of Contemporary Dance.** (Same as Physical Education 240B.) Emphasis placed on movement which is problematic to the individual, style as a thought within various contemporary techniques, work done to strengthen one's ability to turn, jump and leap. Prerequisite: 240A or consent of instructor.
- 240C-2 to 14 Advanced Techniques of Contemporary Dance.** (Same as Physical Education 240C.) Technical development, individual technique weakness, assignments for creative movement solutions to choreographic needs, development of a personal style of dance. Prerequisite: 240B or consent of instructor.
- 251C-3 Beginning Techniques of Vaudeville Performance.** An introduction to the

history of vaudeville in its classic era in the late 19th and early 20th century as well as to its performance. Students will be expected to take part in a vaudeville production as a major part of their work in this course. Prerequisite: consent of chairman and instructor.

258-1 to 30 Work Experience. Upon prior approval by the department, credit is granted for work experience, either on or off campus, that is related to the major program but is not a part of a regular instructional course. Prerequisite: departmental and adviser approval. Mandatory Pass/Fail.

273-4 (2, 2) History of the Dance. (Same as Physical Education 273.) (a) The study of dance from primitive sources through the 19th century. (b) The study of dance as an art form in the 20th century.

304-3 Stage Management. Training in skills and procedures of the stage and production manager for University Community, Road, and Professional Theatre. Laboratory work in actual production required. Prerequisite: successful completion of theatre curriculum core.

305-2 Stage Make-Up. Theory and technique of various types of make-ups. Supplies, at least \$10.00 per semester.

307-2 Drafting for the Theater. Development of the student's skill in scenographic techniques including ground plans, sections, elevations and detail construction drawings. Lecture two hours, laboratory one hour.

308-1 to 10 Dramatic Activities. Credit to be earned by participation in departmental productions. (a) Stagecraft, (b) Lighting, (c) Costuming, (d) Acting, (e) Make-up, (f) Business, (g) Directing, (h) Dance. Prerequisites: 211a,b,c for 308a,b,c; 217 for 308d; 305 for 308e; 404 for 308f; 402a for 308g.

309-4 (2,2) Methods of Teaching Dance. (See Physical Education 218.)

311-2 Play Analysis and Introduction to Playwriting Practice. An analysis of the structure of such dramatic forms as the one-act play, the full-length play, the children's play, the television play, the radio play, etc. as it pertains to the dramatic writer and the theater practitioner. Conceptual elements are also considered in the representative works examined. Also included is a practical introduction to playwriting practice by means of preparing a short play from germinal idea to scenario. Prerequisite: one course in dramatic literature.

312-3 Dance Philosophies. (Same as Physical Education 312.)

313-3 Dance Composition. Introduction to choreography as an art form with special emphasis given to the uses of space, time, and energy. Prerequisite: Physical Education 115h, 213.

317-4 (2, 2) Intermediate Acting. (a) Characterization. Physicalization of psychological elements; mask and movement exercises; observation exercises; intuitive adjustments to the suggestions of music, costume, props, words; continuation of play reading from the actor's point of view. (b) Preliminary scene study. Emphasis on American realism, application of techniques from 217 and 317. Must be taken in a,b sequence. Prerequisite: 217.

318-2 Advanced Stagecraft. Advanced study of the principles and procedures of scenery construction including complex construction problems, rigging and the construction of stage properties. Lecture two hours, laboratory one hour.

322-1 to 10 Practicum in Theater. Practical experience in acting, directing, and associated theater work in area tours and summer stock. Credit may be earned for the course both on tour and in stock.

351C-3 Advanced Techniques of Vaudeville Performance. Further study in the history and performance of classic vaudeville. Advanced students will be expected to contribute creatively to the performance of a vaudeville show. Prerequisite: consent of chairman and instructor.

354-9 (3,3,3) History of the Theatre. (a) Theatre history from primitive times through the Medieval Period. (b) Theatre history from the Renaissance to the Romantic Revolution in France. (c) Theatre history from 1831 to the present Two of these three are required.

374-1 Advanced Folk Dance. (See Physical Education 374.)

379-2 Advanced Dance Composition. (Same as Physical Education 379.) Development of compositional skills, choreographic techniques for large groups, mastery of the solo dance form, and individual movement problems conceived, choreographed, and performed.

390-1 to 4 Reading in Theater Arts. Supervised and directed readings in areas of theater including dramatic literature. Prerequisite: theater major, consent of adviser, instructor, and department chairman.

391-1 to 4 Independent Study in Theater Arts. Independent work on selected problems in research or on creative projects. Prerequisite: theater major and consent of advisor and instructor and department chairman.

402-9 (3, 3, 3) Play Directing. (a) Introduction to directing. The history of the director; the evolution of the director into a position of predominance in modern theater hierarchy. The function of the director; an examination of theoretical viewpoints. Textual analysis; establishing the groundwork for the director's approach to production. Prerequisite: junior standing; 207 and 217; or consent of instructor. (b) The principles of play direction including play selection, analysis, and patterning of auditory and visual elements of production. Extensive scene work in class; direction of a full one-act play by the end of the semester. Prerequisite:

402a or consent of instructor. (c) Extension of analytical and production skills to include non-proscenium and style plays. Students will direct two full one-act plays. Prerequisite: 402b. Courses must be taken in a,b,c sequence.

404-3 Theater Management. Discussion of legal and financial aspects concerning the professional and community theaters of the United States. Consideration of and practice in managerial activities of an educational theater including administration, purchasing, and accounting practices, direct sales, publicity, promotion, and public relations.

409-3 High School Theater and Its Production Problems. Philosophy and analysis of basic needs of the high school theater. Consideration of all production elements with emphasis on play selection, casting, directing—artistic and technical.

410-3 Children's Theater. Study of methods and their practical application of introducing children to theatre and theatrical productions as an art form. Includes the writing of a short play for children. Recommended for majors in education programs.

411A-3 Playwriting—The One-Act Play. Principles of dramatic construction and practice in the writing of two one-act plays. Problems of adaptation are treated. Individual plays have opportunity to be produced in the University Theater's Quarter-Night program for new plays. Prerequisite: one course in dramatic literature for non-majors and graduates: 311 for undergraduate theater and speech communication majors.

411B-3 Playwriting—The Full-Length Play. Principles of dramatic construction and practice in the writing of a full-length play (encompassing such varied types as the children's play, the historical pageant-drama, the outdoor epic-drama, the musical, etc.) In special cases, students may elect to write three short plays. Prerequisite: 411A or consent of instructor; none except 311 for theater and speech communication undergraduate majors. Elective Pass/Fail.

412-6 (3, 3) Stage Design. The design of settings for the stage and other dramatic media. Prerequisite: 207. Elective Pass/Fail.

414-3 Costume Design. History of western costume from Greek to Renaissance and its adaptation to stage use. Theory and principles of theatrical costuming, Application of principles of design and color. Designs for single scenes.

415-3 Costume Design. History of costume, Renaissance through 19th Century. Style, fantasy, and the comic in costume design. Principles of dramatic theory and criticism as applied to costume design. Evaluation of research tools. Methods and procedures in designing costumes for a complete show. Prerequisite: 414.

416-3 Current Theories and Practices in the Teaching of Dance. (See Physical Education 416.)

417-2 Advanced Acting: Advanced Scene Study. Problems in style; scenes from children's plays, Shakespeare, Restoration; the understanding and playing of more complicated subtexts as in Chekhov, Pinter, Beckett, et al; continued application of 217 and 317. Prerequisite: 217 and 317.

418-2 Technical Direction. Advanced course in the management of technical production. Emphasis is placed on scene shop organization, building materials, stage equipment, and the role of the technical director. Lecture two hours. Prerequisite: 211A or consent of instructor.

427-3 Experimental Theater. Experimentation in production techniques: directing, acting, and mixed media. Prerequisite: permission of instructor.

432-2 Stage Lighting. An in-depth investigation of stage lighting theory, design, and practice. Emphasis is placed on creative design projects for the varied dramatic styles and media. Lecture two hours. Laboratory one hour. Prerequisite: 211B or consent of instructor.

438-3 Contemporary Developments in Theater. Critical study of theory and practice. Emphasis is placed on creative arts. Discussion of acting, direction, production, and architecture in the modern theater and its relation to future trends. The rise and development of the film, radio, and television as dramatic media. Prerequisite: theater history or consent of instructor.

444-1 to 6 Contemporary Dance Workshop.

454-6 (3, 3) American Theater. (a) The study of the development of American theater and its environment from colonial times to the present. Primary focus is given to non-musical or dramatic theater. (b) A study of the development of the American musical theater from preminstrels through contemporary music-drama.

489-3 to 6 Theater-Television Workshop. (See Radio-Television 489.)

500-2 Introduction to Research Methods.

502-3 to 6 (3,3) Advanced Directing.

503-2 to 6 (2 per topic per semester) Advanced Technical Problems.

504-3 The Comic Theater.

505-3 The Tragic Theater.

511-3 Playwriting Workshop.

517-2 to 6 (2, 2, 2) Graduate Practicum in Acting.

519-1 to 10 Theater Practicum.

526-2 to 8 (2 per topic) Seminar in Theater Arts.

530-1 to 9 Research Problems in Theater.

550-2 to 6 (2 per topic) Topical Seminar.

599-1 to 6 Thesis.

600-1 to 36 (1 to 16 per semester) Dissertation.

Thermal and Environmental Engineering

(Department, Major [Engineering], Courses)

(SEE ENGINEERING)

Tool and Manufacturing Technology (Numerical Control) (Program, Major, Courses)

Graduates of Tool and Manufacturing Technology (Numerical Control) will have the technical background to assist engineers in research, development, and testing. They will also have skills in metal cutting enabling them to follow through on jobs requiring the abilities of a tool maker.

The tool and manufacturing curriculum is designed to accept students without previous experience in metal cutting. Those students entering with industrial experience, or special courses which were taken during military training, will be given course credit. Transfer students from community colleges will be accepted and given credit for course work where it is applicable.

Upon completion of the tool and manufacturing program, students readily obtain positions in the areas of engineering technicians testing components and materials, pilot model makers, tool and die work, mold making, foremen of numerical control production lines, programmers, and process planners. With additional on-the-job experience, many graduates of tool and manufacturing technology enter into supervisory positions.

The tool and manufacturing curriculum fits between the areas occupied by the mechanical and manufacturing engineer and the skilled toolmaker. It includes theory, procedures, techniques, and skills from each of these areas and falls approximately halfway between.

Students in this program will have the advantage of courses in data processing that will give them the ability to work with computer-assisted programming for numerical controlled machines.

They will learn to design and test industrial, hydraulic, and pneumatic power circuits; to read blueprints, design basic jigs and fixtures, make shop sketches, and alter existing machines for structural changes; and to build basic progressive dies, draw dies, die casting dies, and plastic injection mold dies.

Graduates will have the technical background to work with engineers in research, development and testing, plus skills in metal cutting that will give them the abilities of a tool maker.

Students in tool and manufacturing technology should expect to spend about \$75.00 for instruments, tools, and supplies.

Representatives of industry serve on an advisory committee which helps to keep the program responsive to the needs in the field. Current members are: Paul Andrews, Southern Illinois University at Carbondale, Carbondale; Herb Baum, Nutzel Mach. Co., St. Louis, Mo.; Ed Marshall, General Electric, Carbondale; Charles Stallings, Mt. Vernon High School, Mt. Vernon; R. W. Stelkenrider, Diagraph Bradley Inc., Marion; Roy Volk, Hartwig Inc., St. Louis, Mo.

The associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Tool and Manufacturing Technology (Numerical Control)

GSD 101	3
GSB 202 or 212	3-4
Electronic Data Processing 208a	4
School of Technical Careers 105a,b, 107a,b, and 102 or 153a	10
Tool and Manufacturing Technology 101, 102, 125, 126, 128, 185, 186, 210, 211, 220, 221, 225, 275, 276	56
<hr/>	
Total	76-77

Courses

101-1 to 7 Basic Tool and Manufacturing Laboratory. The student will perform the basic operations covering the drill press, engine lathe, shaper, and basic bench work operations involving layout and hand tools. The operation of the shaper as a unit production machine is covered. Laboratory five to fifteen hours.

102-1 to 7 Milling Machine and Grinding Laboratory. The student will demonstrate ability to set up and operate the various milling machines and grinding machines common to the tool room and manufacturing operations. Laboratory five to fifteen hours. Prerequisite: 101 or consent of instructor.

125-1 to 3 Introduction to Machine Tools. The student will demonstrate knowledge of the basic machine tool operations; also, bench and hand tool techniques. Lecture one to three hours.

126-1 to 3 Machinability of Metals, Milling, and Abrasive Machining. Students will demonstrate ability to select correct cutting speeds, feeds, and tool geometry for various alloy steels and to understand the relationship of the factors involved. They will be required to understand the various tool room and production milling machines and grinders; their construction, set-up, and operations. Lecture one to three hours. Prerequisite: 125 or consent of instructor.

128-2 Hydraulic and Pneumatic Controls. The student will be required to understand industrial fluid power and its application in industry. The student designs, tests, and implements hydraulic and pneumatic circuits that are applicable to industry. Lecture one hour. Laboratory two hours.

180-3 Welding I. The student will demonstrate ability to apply the basic procedures in oxy-acetylene welding. Lecture one hour. Laboratory four hours.

181-3 Welding II. The student will demonstrate ability to apply basic welding procedures in metallic arc welding. Lecture one hour. Laboratory four hours.

182-3 Welding III. The student will demonstrate ability to apply basic welding procedures in T.I.G., M.I.G., and special welding and cutting applications. Lecture one hour. Laboratory four hours. Prerequisite: 181 or consent of instructor.

185-4 Technical Drawing I. Upon completion of this course, the student should be able to read and sketch pictorial and multiview drawings which include auxiliary views, sectional views, assemblies, weldments, up-to-date types of precision dimensioning, and many types of fasteners and machine elements. Lecture two hours. Laboratory three hours.

186-4 Technical Drawing II. Upon completion of this course the student should be able to read more complex drawings, use drawing instruments and geometric constructions where accuracy of layout is important, and design and draw simple jigs and fixtures. Lecture two hours. Laboratory three hours. Prerequisite: 185 or consent of instructor.

210-1 to 7 Numerical Control, Electrical Discharge Machining, and Tool and Die. The student will demonstrate ability to set-up and operate the numerically controlled milling machine for production jobs; to set-up and operate the electrical discharge machine on die and mold making applications; and to build progressive compound and forming dies. Laboratory five to fifteen hours. Prerequisite: 102 or consent of instructor.

211-1 to 7 Advanced Numerical Control, Tool and Die, and Production Machining. Students will demonstrate ability to set-up and operate advanced production jobs on the turret lathe, tracer lathe, and numerically controlled milling machines. They will build progressive dies and mold dies. Laboratory five to fifteen hours. Prerequisite: 210 or consent of instructor.

220-1 to 3 Numerical Control, Inspection Practices, and Electrical Discharge. The student will demonstrate ability to program for typical industrial jobs using point to point programming, to understand the E.D.M. process and to select proper machine settings for a

given application, and to understand inspection practices and precision measuring procedures. Lecture one to three hours. Prerequisite: 126 or consent of instructor.

221-1 to 3 Tool and Die, Production Machining, and Process Planning. The student will demonstrate ability to process plan and run cost estimates on typical production jobs; to understand basic die design and components in relation to progressive compound and forming dies, and to understand production processes. Lecture one to three hours. Prerequisite: 220 or consent of instructor.

225-2 Manufacturing Processes. A study of the techniques required to coordinate a diverse variety of manufacturing processes into the making of acceptable products. Special emphasis will be made on the role of the technician in the choice and application of selected processes. Lecture two hours. Prerequisite: 221 or consent of department.

275-2 Ferrous Metallurgy. The student will demonstrate understanding in the theory of alloys, characteristics of metals, simple phase diagrams and basic heat treating practices. Lecture two hours.

276-2 Tool Steel Metallurgy. Students will demonstrate ability to apply heat treating procedures with tool steel common to industrial uses. They must also be able to select the proper steel for the design criteria. Lecture one hour. Laboratory two hours. Prerequisite: 275 or consent of instructor.

310-6 to 24 Certified Welder Training. Students may choose a concentrated area of work such as pipe welding, boilermaking welding, or structural steel welding. Upon completion of this course students will pass the ASME code requirements in the welding area chosen. They may choose any one or all of the following processes; oxyacetylene, metallic arc, tungsten inert gas, metallic inert gas, and cored wire welding. Through individualized instruction students will progress at their own rate and may complete instruction at any time depending upon individual progress. Certified papers will be completed by the School of Technical Careers and will be given to the student or forwarded to an employer. Prerequisite: completion of formal welding program or equivalent work experience.

Uncommon Languages (Minor)

(SEE LINGUISTICS)

University Studies (Program)

The University Studies program allows the eligible student to design a broad interdisciplinary program of study leading to a Bachelor of Science or Bachelor of Arts degree. The Bachelor of Arts degree is granted to the graduate who has completed at least one full year of foreign language on the college level; the Bachelor of Science degree is granted to the graduate who has not completed a year of foreign language.

In order to be formally admitted to work toward a degree in University Studies, the student must meet the following criteria:

1. The student must have fewer than 90 semester hours passed.
2. The student must have completed at least one full year of college course work—a minimum of 24 semester hours—with a 2.25 grade point average or higher. (For entering transfer students, the 2.25 must be for all college work previously completed; for continuing Southern Illinois University at Carbondale students, the 2.25 must be for all Southern Illinois University at Carbondale work.)
3. The student must not have exceeded any of the limitations prescribed by the program.
4. The student must have his individual program plan approved by the dean of General Academic Programs or his representative.

There are few specific requirements for the degree in University Studies other than those requirements which are university-wide baccalaureate requirements. However, there are limitations on the selection of coursework to insure that students pursue a program commensurate with their ability and compatible to their educational goals and future aspirations.

Bachelor of Arts Degree

<i>General Studies Requirements</i>	45 ¹
<i>Requirements for University Studies</i>	75
Foreign language	(4) + 4
300-400 level coursework	40 ¹
Electives as approved by the dean of General Academic programs or a designated representative	31 ²
<i>Total</i>	120

Bachelor of Science Degree

<i>General Studies Requirements</i>	45 ¹
<i>Requirements for University Studies</i>	75
300-400 level coursework	40 ¹
Electives as approved by the dean of General Academic Programs or a designated representative	35 ²
<i>Total</i>	120

¹The student must have a minimum grade point average of 2.00 for the 40 semester hours of 300-400 level coursework. General Studies courses at the 300-level count toward both the General Studies requirements and toward the requirement of 40 semester hours at the 300-400 level.

²There are two limitations placed on the electives:

a. The student may take no more than 40 semester hours in any academic unit *excluding* the basic 45 semester hours required in General Studies—with the exception of the College of Liberal Arts where he may take no more than 27 semester hours in the Social Sciences (excluding the nine semester hours required in Area B) and he may take no more than 27 semester hours in the Humanities (excluding the nine semester hours required in Area C and excluding English Composition).

b. The student may take no more than 20 semester hours in a department (or in a School within a College). General Studies courses are to be included in the total *except* for the basic 45 semester hours required.

In other words, *any* General Studies courses taken in addition to the minimum requirements are counted both toward the academic unit limits allowed and toward the department limits allowed.

University (Courses)**Courses**

257-3 to 12 Concurrent Work Experience. For giving elective credit for concurrent work experience by students enrolled in the University Studies degree program. Prerequisite: consent of department.

258-1 to 30 Work Experience. For giving elective credit for previous work experience by students enrolled in the University Studies degree program when credit has been established by departmental evaluation.

259-1 to 60 Occupational Education. A designation for credit granted for past occupational educational experiences related to students' educational objectives. Used only when specific program credit cannot be granted and is usable for elective credit only.

388-1 to 18 (1 to 9 per semester) International Studies. Course work undertaken as part of an approved University residential study program abroad. May be taken for a maximum of nine semester hours per semester and may be repeated for a maximum of 18 semester hours. Prerequisite: major department or program approval.

Vocational Education Studies (Department, Courses)

Programs are designed to prepare persons for teaching, supervisory, and leadership roles in elementary schools, secondary schools, colleges, military and industry in several areas of vocational and pre-vocational education. Students are made aware of and become knowledgeable about roles, relationships, and expertise in a variety of occupational subject areas including agriculture, business, career education, health, home economics, industrial arts, public service, and trades and industries. Several majors and specializations are offered.

AGRICULTURAL EDUCATION (Major)

In this program a student will receive the technical and professional training needed to teach applied biological and agricultural occupations in secondary schools, serve in extension, or be employed in industry. A student majoring in agricultural education may specialize in one of the following areas: agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture, agricultural resources, forestry, and other areas of agriculture in specially designed curricula.

Bachelor of Science Degree, College of Education or School of Agriculture
AGRICULTURAL EDUCATION MAJOR—SECONDARY TEACHING CERTIFICATE

<i>General Studies Requirements</i>	46
GSA 106, 115	6
GSB 212 or 300, and 202	6-7
GSD 101, 107, 118, 153	12
GSE 201 and two hours of physical education activity courses	4
<i>Requirements for Major in Agricultural Education</i>	40
Agricultural Industries (agricultural economics)	3
Agricultural Industries (agricultural mechanization)	4
Agricultural Industries 311 and one of the following: Agricultural Industries 411, 414, Vocational Education Studies 360, 364	6
Animal Industries	3
Plant and Soil Science	3
Specialty in Agriculture and agriculture electives	21
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Electives</i>	10
<i>Total</i>	120

BUSINESS EDUCATION (Major)

The business education major offers programs to prepare persons for teaching, supervisory, and leadership roles in secondary schools, private business schools, colleges, and industry in the areas of vocational and pre-vocational business education, and in-service training. Students selecting the secondary certification option may select one of the following teaching areas: office education, accounting/data processing, or general business/consumer education/distributive education. Those selecting the non-certification option may select from these areas: office, accounting, data processing, distributive.

Bachelor of Science Degree, College of Education

BUSINESS EDUCATION MAJOR—SECONDARY TEACHING CERTIFICATE

<i>General Studies Requirements</i>	45
Including GSB 202, 211 or Economics 214, 212 or 300, 305, GSC 208, GSD 101, 110, 1 8, GSE 201, 2 hours of physical education activity courses	
<i>Requirements for Major in Business Education</i>	48
Accounting 221	3
Marketing 304	3
Vocational Education Studies 210, 302, 306	8
Secretarial and Office Specialties 101a	3

Preparation in one of the following business teaching areas:

Office Education

Vocational Education Studies 311, 313, 404

Secretarial and Office Specialties 106, 107, 234

Plus (a) three supplemental teaching areas or (b) two supplemental teaching areas and completion of vocational teaching requirements

Accounting/Data Processing Education

Vocational Education Studies 314, 412

Accounting 222, 321, 365

Electronic Data Processing 101b, and two of the following: 201a, 202, 204a, and 206

Plus (a) two supplemental teaching areas or (b) one supplemental teaching area and completion of vocational teaching requirements

General Business/Consumer Education/Distributive Education

Vocational Education Studies 418, 480

Administrative Sciences 170 or 304

Economics 215

Family Economics and Management 340

Finance 271 or 370

Marketing 305, 341, 363, 401

Plus (a) one supplemental teaching area or (b) completion of vocational teaching requirements

Professional Education Requirements 24

See Teacher Education Program, page 63.

Electives 3

Total 120

Supplemental Teaching Areas in Business Education:

1. Typewriting: Vocational Education Studies 311
2. Shorthand and Transcription: Vocational Education Studies 304, 312
3. Accounting and Bookkeeping: Accounting 222, Vocational Education Studies 314
4. General Business/Consumer Education: Vocational Education Studies 480 and one of the following: Family Economics and Management 340, 341, GSB 346, Administrative Sciences 170, 304
5. Business Law: Finance 271, 370
6. Data Processing: Vocational Education Studies 412, Electronic Data Processing 101, one of the following: Electronic Data Processing 201a, 204a, 206, Computer Science 202, Engineering 222, Accounting 319

VOCATIONAL PROGRAM TEACHING REQUIREMENTS

Vocational Education Studies 470, 466, plus the equivalent of one year of work experience from Vocational Education Studies 258, 395, or 491.

Credit from Vocational Education Studies 258 or 259 may be used in lieu of the business education requirements, except Vocational Education Studies 311, 312, 313, 314, 412, 418, and 480.

The city of Chicago has requirements that differ from those presented in this bulletin. Copies of these requirements may be obtained from the business education office, 133 General Classroom Building.

BUSINESS EDUCATION MAJOR—NON-CERTIFICATION BUSINESS OCCUPATIONS TEACHING

General Studies Requirements 45

Including GSB 305, Economics 214 or GSB 211

<i>Requirements for Major in Business Education</i>	75
Accounting 110 and 120 or Accounting 221 and 222	6
Administrative Sciences 304	3
Marketing 304	3
Economics 215	3
Finance 271	3
Secretarial and Office Specialties 101a	3
Vocational Education Studies 210, 302, 306, 484	11
Vocational Education Studies 395, 460, 466, 472, 495	18-28
Plus completion of courses in one of the following areas:	
Office	
Vocational Education Studies 304, 404, and two of the following: 311, 312, 313	
Secretarial and Office Specialties 106, 107, 234	
Accounting	
Accounting 321, 322, 341, 365	
Vocational Education Studies 314	
Data Processing	
Electronic Data Processing 101b, 104, 205, and two of the following: 201a,b, 202, 204a,b, 206	
Vocational Education Studies 412	
Distributive	
Finance 370	
Marketing 363, 341, 401	
One of the following: Marketing 305, Family Economics and Management 340, GSB 346	
Vocational Education Studies 418	
<i>Total</i>	120

Credit from Vocational Education Studies 258 or 259 may be used in lieu of the business education requirements.

Minor

A minor in business education consists of a minimum of 20 hours. Minors are planned for each student individually by the student and the adviser.

HOME ECONOMICS EDUCATION (Major, Courses)

Programs are designed to prepare home economics teachers and home economics extension advisers with various specializations. Both general home economics education and vocational home economics teachers are prepared. Three specializations are offered.

Bachelor of Science Degree, College of Education

HOME ECONOMICS EDUCATION MAJOR—TEACHING VOCATIONAL HOME ECONOMICS SPECIALIZATION

This program prepares students to teach consumer education, homemaking as an occupation, and occupational home economics in schools operating under the provisions of the federal vocational act.

<i>General Studies Requirements</i>	45
Including GSB 202, 203, 212; GSC 101, GSD 101, 117, or 118, 152, 107; GSE 201; 2 hours of physical education activity courses	

<i>Requirements for Major in Home Economics Education</i>	44
Chemistry 140a	(4)
Child and Family 227, 237, 345	9
Clothing and Textiles 127, 150, 227, 304, 305	10
Family Economics and Management 320, 330, 340, 350, 351	13
Food and Nutrition 100, 156, 335	8
Interior Design 131	4
<i>Professional Education Requirements</i>	32
See Teacher Education Program, page 63.	24
Vocational Education Studies 320, 322, 470	8
<i>Total</i>	121

Credit from Vocational Education Studies 258 or 259 may be substituted for six semester hours in each of two areas (Child and Family, Clothing and Textiles, Family Economics and Management, Food and Nutrition) of the home economics requirements. There is no substitution for Child and Family 227, 237, Clothing and Textiles 150, Family Economics and Management 340, Food and Nutrition 100, or Interior Design 131.

HOME ECONOMICS EDUCATION MAJOR—TEACHING VOCATIONAL HOME ECONOMICS SPECIALIZATION, SPECIAL EDUCATION EMPHASIS (SECONDARY TEACHING CERTIFICATE IN HOME ECONOMICS)

This program prepares home economics teachers for special needs learners.

<i>General Studies Requirements</i>	45
Including GSB 202, 203, 212, GSC 101, GSD 101, 107, 118, 152, GSE 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Home Economics Education</i>	43
Chemistry 140a	(4)
Child and Family 227, 237	6
Clothing and Textiles 127, 150, 227	6
Family Economics and Management 320, 350	5
Food and Nutrition 100, 156, 355	8
Interior Design 131	4
Vocational Education Studies 320, 322, 341, 464, 470	14
<i>Requirements in Special Education</i>	
Special Education 400, 402, 405, 411	11
<i>Professional Education Requirements</i>	24
See Teacher Education Program, page 63.	
<i>Total</i>	123

HOME ECONOMICS EDUCATION MAJOR—EXTENSION SPECIALIZATION

This program prepares students for positions as home advisers, 4-H advisers, and with further training, extension specialists.

<i>General Studies Requirements</i>	45
Including GSB 202, 203, 212; GSC 101, GSD 101, 118, 107, 152	
<i>Requirements for Major in Home Economics Education</i>	68
Chemistry 140a,b	(4) + 4
Child and Family 227, 237, 345	9
Clothing and Textiles 127, 150, 227, 304, 305	10

Family Economics and Management 320, 330, 340, 350, 351 ...	13
Food and Nutrition 100, 156, 256, 335	11
Vocational Education Studies 320, 324, 325, 431	12
Interior Design 131	4
Journalism 340 or substitute	2
Speech Communication 221	3
<i>Electives</i>	7
<i>Total</i>	120

OCCUPATIONAL EDUCATION (Major, Courses)

Programs are designed to prepare persons for teaching, supervisory, and leadership roles in schools, colleges, military, and industry. Students are made aware of and become knowledgeable about roles, relationships, and expertise in a variety of educational agencies and occupational subject areas. Three specializations are offered.

Bachelor of Science Degree, College of Education

OCCUPATIONAL EDUCATION MAJOR—PREOCCUPATIONAL TEACHING SPECIALIZATIONS, INCLUDING INDUSTRIAL ARTS EMPHASIS (SECONDARY TEACHING CERTIFICATE)

Preoccupational teaching encompasses a broad area of study of industry and related areas in elementary and secondary schools. It involves study in a broad area of industrial skills and technology. Students may select a minor area of specialization that will prepare them for teaching orientation and exploration of the world of work through the study of occupational clusters and analyses of occupations; for conducting cooperative education programs; for providing career education; for becoming specialized industrial teachers; for working with specialized populations; and for other specialized programs designed by the student and approved by the academic adviser.

<i>General Studies Requirements</i>	45
Including GSA 101, 106; GSB 202, 212, GSD 101, 117, 153, GSD	
Mathematics; GSE 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i>	42
Requirement in Laboratory Experiences	24
Vocational Education Studies 366, 370	7
Electives in four industrial arts areas	17
Requirements in Approved Areas of Specialization	18
Vocational Education Studies 362	3
Electives in specialization	15
<i>Professional Education Requirements</i>	33
See Teacher Education Program, page 63.	24
Vocational Education Studies 460, 462, 478	9
<i>Total</i>	120

OCCUPATIONAL EDUCATION MAJOR—SECONDARY TEACHING SPECIALIZATION, OCCUPATIONAL EMPHASIS (SECONDARY TEACHING CERTIFICATE)

Secondary occupational teaching concerns specialized instruction in a wide variety of vocational-technical occupations including industrial-oriented, health-oriented, personal and public service-oriented, and others. In addition to being certificated to teach in secondary high schools or vocational schools, graduates may also teach in industry, private schools and community junior colleges.

<i>General Studies Requirements</i>	45
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i>	42
Vocational Education Studies 395	16
Vocational Education Studies 258 and/or 259	26
<i>Professional Education Requirements</i>	33
See Teacher Education Program, page 63.	24
(Must include Education 304b)	
Vocational Education Studies 460, 462, 466	9
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<i>Total</i>	120

OCCUPATIONAL EDUCATION MAJOR—OCCUPATIONAL TEACHING SPECIALIZATION

Occupational teaching involves instructing youth and adults in highly skilled or technical areas such as dental hygiene, electronics, practical nursing, automotives, aviation, commercial art, executive secretary, and others, which require an advanced knowledge of application in a defined line of endeavor.

<i>General Studies Requirements</i>	45
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i>	75
Vocational Education Studies 258 ¹ , 259, 395, 460, 462, 466, 472, 495	66
College of Education electives	9
To include 3 semester hours in courses outside the Department of Vocational Education Studies	
<hr/>	
<i>Total</i>	120

¹Limit on 258 is 30 semester hours.

Courses

- 119-1 Home Economics Careers.** (Same as Human Resources 111.) An introduction to career opportunities in the broad fields of home economics and related occupations.
- 210-2 Introduction to Business Education.** An introduction to teaching in business education programs in secondary schools, vocational schools, community colleges, and educational programs in businesses. Emphasis is on curriculum structures, philosophical bases, instructional materials and media, student characteristics, employment requirements, and career opportunities.
- 257-1 to 30 Work Experience.** Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of program coordinator. Mandatory Pass/Fail.
- 258-2 to 30 Occupational Experience.** Credit for documented experience in a teachable occupation or family of occupations. Prerequisite: 12 hours of *C* or better at Southern Illinois University.
- 259-2 to 48 Occupational Subjects.** Credit for documented occupational study in accredited and selected other programs. Prerequisite: 12 hours of *C* or better at Southern Illinois University.
- 302-3 Communications in Business.** Principles and practice in written and oral business communications. Included is the development of ability to use words and correct grammatical construction in oral and written business expression; the learning of the principles of planning, organizing, writing, and summarizing effective communications; and the refinement of listening skills.
- 304-3 Analysis of Alternative Shorthand Systems.** Development of high-level dictation and transcription skills and knowledges in one shorthand system; the learning of the theory of one or more additional shorthand systems, either alphabetic or symbolic. Prerequisite: Secretarial and Office Specialties 102D or 103D or equivalent.

306-3 Introduction to Data Processing. Emphasis on operation of keypunch machine, vocabulary development, unit record equipment, concepts of programming, fundamentals of computer mathematics and applications, and flow charting.

311-3 Teaching Typewriting. Review of typewriting technique, skill, and knowledges. Methods of instruction, skill-building principles and techniques, selection and preparation of instructional materials, review of course content, standards of achievement, and evaluation of pupil performance. Prerequisite: Secretarial and Office Specialties 101D or equivalent.

312-2 Teaching Shorthand and Transcription. Methods of instruction, skill-building principles and techniques, selection and preparation of instructional materials, review of course content, standards of achievement, and evaluation of pupil performance. Prerequisite: 304 or equivalent.

313-3 Teaching Office Procedures and Machines. Review of skills and knowledges pertaining to office procedures and machines; instructional methods and materials for and the evaluation of pupil performance in office practice, clerical practice, and office machines. Prerequisite: 404 or equivalent.

314-2 Teaching Bookkeeping and Accounting. Teaching procedures, instructional materials, and evaluation of pupil progress in bookkeeping and accounting; instruction and practice in operations taught in high school and college bookkeeping-accounting classes. Prerequisite: 210 or equivalent.

320-1 Home Economics as a Profession. A social, psychological, and philosophical interpretation of home economics in today's world. Overview of career areas and the practice of the dual role of homemaker-professional worker.

321-2 Methods of Teaching for Non-Teaching Majors. Educational principles for use in situations mostly outside of the formal classroom. Selection and organization of materials. Practice in using a variety of techniques and teaching aids.

322-4 Methods and Curriculum in Home Economics. The total home economics program. Curriculum planning for the course and the unit. Teaching methods especially suitable for home economics classes. Teaching aids and materials. Evaluation of instruction. Managing the business of the department. Possible expense for materials for teaching experiences: \$5.00. Prerequisite: Basic professional block in education, eight semester hours.

324-4 History, Development and Principles of Extension Work. The history and philosophy of cooperative extension. Principles and practice of organizing and administering extension work in home economics. Offered alternate years. Transportation expense for field trips: approximately \$5.00

325-4 Field Experience. Six weeks of observing and assisting a county home economics extension adviser. Supervised experiences in various phases of extension work. Student must provide for own living and travel expenses. Prerequisite: 324.

326-2 Practicum-Home and Family Life Education. Provides pre-service home economics teachers and home economics extension advisers experiences in observing and working with families with respect to problems, needs, and values as a basis for more effective teaching.

327-3 Home Economics for Men (and Women). A survey of the areas of home economics; child care and personal, family, and community relations; economics and management of personal and family resources; food, nutrition, clothing selection and buying; financial management, consumer education; and protection. Emphasis on life skills as reflected in needs of students. Field trip and practicum experiences. Cost: two dollars for supplies.

360-15 (3, 3, 3, 3, 3,) Vocational, Occupational, and Career Simulation Clusters Studies. Vocational, occupational, and careers simulation and gaming activities. Occupational orientation and exploration. Community laboratory films and other methods. Team teaching also used.

362-3 Vocational, Occupational, and Career Orientation and Exploration. Introduction to orientation and exploration activities for vocational, occupational, and career education programs at the junior high and early senior high school levels. Career development processes are examined.

364-3 Leadership of Youth and Peer Groups. Identification and discussion of the role of organizations, both structured and unstructured. Identification and development of qualities of leadership.

366-4 Multi-Activity Laboratory. Participation in designing instructional programs for multiple activity industrial arts laboratory or shops and performing the shop tasks. It includes such methods or approaches as project, exercises, mass production, enterprise, American industries, career orientation, world of construction, and others. Prerequisite: 15 hours shop or laboratory credits.

368-3 Construction Methods for Primary Teachers. Various media such as wood, metal, and paper. Acquainting the primary teacher with the materials, tools, and processes which students at the primary level can manipulate and use in the classroom. Laboratory.

370-3 Diversified Crafts for Teachers and Recreation Leaders. Experience in constructional activities involving the use of wood, metals, leathers, plastics, reed, raffia, clay, and other materials adaptable to the needs and interests of camp counselors and elementary school leaders. Laboratory.

- 384-3 Adult Education in Vocational, Occupational, and Career Education.** Planning and preparing for adult education programs. Includes review of characteristics of clientele, financial support, program development.
- 395-2 to 24 Occupational Internship.** Includes job skills and knowledges, management-worker relations, supervised instruction, conferences, and evaluations. Prerequisite: consent of coordinator.
- 398-1 to 3 Special Problems in Vocational, Occupational, and Career Education.** Independent study for qualified students. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor.
- 404-3 Analysis of Office Systems.** An investigation of procedures and systems used in various types of offices, including a study of work flow, the processing of words, office personnel and their responsibilities, and the role of office functions in the total business society.
- 405-3 Office Management.** Principles of management applied to office problems. Emphasis on the role of the office in business management; office organization; physical facilities and layout of office; office services, procedures, standards, and controls; records management.
- 407-2 Records Administration.** Methods and systems of controlling, storing, retrieving, and disposing of records. Application of principles to such records as medical, legal, educational, industrial, and governmental.
- 410-2 Principles and Problems of Business Education.** A study of the fundamentals of business education; its relation to business, to general education, and to vocational and career education; its history, current status, and trends; special emphasis on objectives and curriculum problems.
- 411-2 Teaching Classes Related to Experiential Business Education.** For those who plan to become teacher-coordinators of vocational cooperative education programs. Emphasis is placed upon the construction and presentation of subject matter and materials used to teach basic marketable skills to secondary and post-secondary students. Prerequisite: 210.
- 412-2 Teaching Data Processing.** Instructional methods and materials for and the evaluation of pupil progress in data processing. Prerequisite: 306 or Electronic Data Processing 101 or equivalent.
- 416-3 Teaching Marketing Skills.** The development of instructional materials and methods used to teach consumer and industrial product pricing; merchandise selection and control; salesmanship, advertising, and promotional sales skills. Prerequisite: Marketing 363.
- 417-3 Teaching Distribution Skills.** The development of instructional methods and materials to develop high-level skills in product development, market segmentation, transportation modes utilization, product handling, and merchandise storage. Prerequisite: Marketing 341 or 452.
- 418-3 Teaching Distributive Education.** For those who plan to become teacher-coordinators of vocational cooperative or in-school distributive education programs. Emphasis on the planning of facilities; selection and review of course content; preparation of instructional materials; organization and arrangement of units; related instruction; simulated, block, and project plans; and student evaluation. Prerequisite: Marketing 304 and 363.
- 419-2 to 12 Occupational Teaching Internship.** Experience in working with special intern and post-high school technical training programs in approved centers. The teacher will follow the program of the supervisors of the primary specialization in both regular and extra class activities. Prerequisite: 395-10 hours, 490-3 hours.
- 428-3 Home Economics for Elementary Teachers.** Identification and development of meaningful home economics related experiences appropriate for various levels of elementary curriculum. Interpretation of current vocational education legislation and trends affecting elementary programs.
- 430-3 Teaching Concepts and Generalizations in Home Economics.** Use of cooperative teacher-pupil planning to develop curriculum based on subject matter concepts and generalizations. Techniques for helping students to take part in planning, implementation of learning experiences, and evaluation. Provides practice in use of group process to plan for sequential learnings. Prerequisite: consent of instructor.
- 431-3 Demonstration and Laboratory Techniques in Home Economics Education.** Practice in planning and carrying out instructional demonstrations in home economics for youth and adults. Use of audiovisual aids and hand-outs. Procedures for laboratory and guided practice to develop psychomotor skills. Attention given to TV presentations. Possible expense for materials to use in classroom demonstrations \$5.00 to \$8.00.
- 433-3 Women and the Politics of Education.** Ways of organizing to implement legislation for social needs. How to have input into decisions which affect the educational community—reimbursement, grants, funding. The need, impact, and opportunity for careers in public service as these relate to individual, family, and societal needs. Field trips.
- 460-3 Vocational, Occupational, and Career Education Analysis and Curriculum Development.** The first of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational, occupational, and

career education. This course includes conducting job analysis, specifying objectives, and developing curriculum.

462-3 Vocational, Occupational, and Career Education Methods and Materials. The second of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational, occupational, and career education. This course is concerned with the unique instructional methods and material utilized in vocational, occupational, and career education.

464-3 Special Needs Learners in Vocational, Occupational, and Career Education Programs. Theoretical and applied concepts in teaching special needs learners. Affective aspects of learning are emphasized. Curricula and teaching materials are examined and prepared. Field trips.

466-3 Principles and Philosophies of Vocational, Occupational, and Career Education. Nature and purpose of vocational, occupational, and career education, their relationships and differences, and the place of each in preparing people for the world of work.

470-3 Introduction to Cooperative Vocational, Occupational, and Career Education. Investigation of competencies required of cooperative education instructors and coordinators.

472-3 Post-Secondary Cooperative Vocational, Occupational, and Career Education. Operational procedures and development of instructional processes for coop programs. Work experience required. Transportation expense for work and field trips.

474-3 Individualized Instruction in Vocational, Occupational, and Career Education. Study of the theory, characteristics, appropriateness, and evaluation techniques of individualized programs. Will include a review of the current state of individualized instruction in vocational, occupational, and career education.

478-3 Contemporary Principles and Management of IA Programs. Study of contemporary approaches to the teaching of industrial arts including objective philosophies, advantages, and disadvantages; shop or laboratory design and organization; and the management of programs in shops or laboratories. Not for graduate credit. Prerequisite: junior standing.

480-3 Teaching Consumer Education. Principles of teaching consumer education in all settings. Emphasis on meeting state requirements for teachers of consumer education in Illinois. Selection and study of course content; preparation of instructional materials; organization and arrangement of units of study; and planning and evaluation program.

484-3 Adult Vocational and Technical Education. A study of adult vocational and technical education as offered in a variety of educational settings. Major topics include organization, funding, teaching, student characteristics, and evaluation. Prerequisite: consent of adviser.

486-3 Post-Secondary Vocational-Technical Teaching. A study of contemporary approaches to the teaching of vocational education in post-secondary educational institutions. The course includes a review of practices in area vocational centers, vocational-technical institutes, community and junior colleges, colleges and universities.

488-3 Vocational Student Placement and Follow-Up. The organization and operation of a comprehensive school-based placement system for secondary and post secondary vocational, technical and adult education students. Utilization of resources with emphasis on planning, implementing, and evaluating the placement effort.

490-2 to 4 Vocational, Occupational, and Career Education Readings. Supervised reading for qualified students. (a) Agriculture education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor and coordinator of program.

491-1 to 5 Advanced Occupational Skills. Modern occupational practice in selected fields. For experienced professionals seeking advanced techniques in specialized areas of occupational education. (a) Agricultural education (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: intermediate level study in the specialty.

494-1 to 4 Workshop in Vocational, Occupational, and Career Education. Study of current issues of interest to vocational, occupational, and career education teachers, supervisors, and administrators in the field. Emphasis of each workshop will be identified in each workshop announcement. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education.

495-2 to 12 Vocational, Occupational, and Career Education Teaching Internship. Experience in working with special intern and post-high school vocational, occupational, and career education training programs in approved centers. The teacher will follow the program of the supervisor of the primary specialization in both regular and extra class activities. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: 395-10 hours, 490-3 hours.

497-2 to 6 Vocational, Occupational, and Career Education Practicum. Applications of vocational, occupational, and career education skills and knowledge. Cooperative arrangements with corporations and professional agencies provide opportunity to study under specialists. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: 20 hours in specialty.

- 498-2 to 5 Special Problems in Vocational, Occupational and Career Education.** Assistance and guidance in the investigation and solution of vocational, occupational, and career education problems (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor and coordinator.
- 511-2 Improvement of Instruction in Consumer and Basic Business Subjects.**
- 512-2 Improvement of Instruction in Secretarial Subjects.**
- 518-3 Home Economics Programs in the Schools.**
- 520-3 Trends and Issues in Home Economics Education.**
- 521-3 Advanced Methods of Teaching Home Economics.**
- 522-3 Supervision of Home Economics.**
- 561-3 Research in Vocational, Occupational, and Career Education.**
- 562-3 Legislation and Organization in Vocational, Occupational, and Career Education.**
- 564-3 Evaluation of Vocational, Occupational, and Career Education Programs.**
- 566-3 Administration and Supervision of Vocational, Occupational, and Career Education Programs.**
- 568-3 Planning Vocational, Occupational, and Career Education Facilities.**
- 570-3 Cooperative Vocational, Occupational, and Career Education Programs.**
- 572-3 Post-Secondary Cooperative Vocational, Occupational, and Career Education Programs.**
- 574-3 Vocational, Occupational, and Career Education Information.**
- 576-6 (3, 3) Policy Implementation and Supervision of Vocational, Occupational, and Career Education Programs.**
- 578-3 Vocational, Occupational, and Career Education in Diverse Settings.**
- 580-3 Characteristics of Vocational, Occupational, and Career Education Clientele.**
- 582-3 Vocational, Occupational, and Career Education Planning and Policy Development.**
- 584-3 Articulated Vocational, Occupational, and Career Education Programs.**
- 586-3 Methods and Materials for Adult Vocational, Occupational, and Career Education Programs.**
- 590-1 to 4 Readings in Vocational, Occupational, and Career Education.**
- 591-1 to 9 New Developments in Vocational, Occupational, and Career Education Programs.**
- 592-2 to 6 Recent Research in Vocational, Occupational, and Career Education.**
- 593-2 to 4 Individualized Research in Vocational, Occupational, and Career Education.**
- 594-1 to 4 Research Seminar in Vocational, Occupational, and Career Education.**
- 595-1 to 16 Vocational, Occupational, and Career Education Professional Internship.**
- 597-1 to 4 Vocational, Occupational, and Career Education Practicum in Supervision.**
- 598-2 to 6 Special Investigations in Vocational, Occupational, and Career Education.**
- 599-2 to 6 Thesis.**
- 600-1 to 36 Dissertation.**

Women's Studies

A number of departments of the University offer courses dealing with women's studies. While a major or minor program is not offered, the list below provides information about courses for those interested in pursuing studies relating to women.

Art 457, Women in the Visual Arts

Family Economics and Management 480, Women in the Home and Labor Market

GSC 231, Greek Civilization

GSC 330, Classical Mythology

History 368, Women in American History

History 369, History of the American Family

Philosophy 446, Philosophical Perspectives on Women

Psychology 333, The Psychology of Women

Vocational Education Studies 433, Women and the Politics of Education

In addition, some special topic courses are concerned with women's studies. For the courses listed below, the topical listing is in parentheses following the general

course title. Students interested in enrolling in these courses should refer to the Schedule of Classes or contact the department regarding the scheduling of these sections.

- Administration of Justice 492, Contemporary Issues in Administration of Justice (the female offender.)
- Child and Family 408, Workshop (changing roles of women and men.)
- Communications and Fine Arts 397b, Special Interdisciplinary Studies (women in the arts-the politics of sex.)
- GSC 393, Studies in Literature (women in literature.)
- Liberal Arts 303, Interdisciplinary Studies (introduction to women's studies.)
- Linguistics 440, Topics in Linguistics (sexism and language.)

Zoology (Department, Major, Courses)

A major in zoology is an appropriate beginning for those planning a career that includes teaching and research in zoology, conservation, fisheries management and wildlife management, environmental monitoring, or the practice of medicine, dentistry, and veterinary science.

Students majoring in zoology are required to develop an individualized curriculum by consulting with the director of undergraduate studies in zoology and an appropriate faculty member of the department. The curriculum must include: a year of chemistry or physics, one course in mathematics beyond the College of Science requirement or a course in computer science, Biology 305 and 307, Zoology 220a,b, 300 (or equivalent, i.e., Biology 309), Zoology 482, and at least 18 additional semester hours of electives in zoology.

Courses offered in the General Studies program will not be accepted as electives. A minimum of 37 semester hours of biology and zoology must be completed for the major.

Bachelor of Arts or Bachelor of Science Degree, College of Science

<i>General Studies Requirements</i>	45 ¹
<i>Supplementary College of Science Requirements</i>	11
Foreign Languages	(4) + 4
Mathematics 110a,b or 111	(4) + 1
Physical Science (Not General Studies)	6 ²
<i>Requirements for Major in Zoology</i>	40-44 ³
Biology 305, 307	6
Zoology 220a,b, 300 (or its equivalent), 482	13
Elective zoology courses	18
Chemistry or Physics (Not General Studies)	(6) + 0-2 ⁴
A course in Mathematics (beyond Mathematics 110a,b or 111), or in Computer Science	3-5
<i>Electives</i>	20-24
<i>Total</i>	120

¹The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
²May apply toward General Studies if approved substitutes are taken.
³Zoology requirements will satisfy biological science requirement for the College of Science.
⁴Satisfies physical science requirements for the College of Science.

Bachelor of Science Degree, College of Education

Degrees taken in the College of Education must satisfy all requirements of that college for the Bachelor of Science degree. The requirements for the major in zoology are the same in both colleges. College of Education professional education

and other certification requirements may be found in the section of this catalog titled Secondary Education. See Teacher Education Program, page 63.

Minor

A minor in zoology consists of 20 hours, including 220a,b, and 482. Electives from zoology and the following areas may be used to complete the 20-hour minimum requirement: Biology 305, 306, 307, and 309; but no General Studies courses can be included.

Courses

118-4 Introductory Zoology. An introduction to the basic concepts of animal life and its diversity, including the elements of cellular and organismic structure and function, reproduction, development, genetics, evolution, and ecology. Three lectures and one 2-hour laboratory per week. Offered Fall, Spring, and Summer terms. A cost of \$5 may be incurred by student.

212-2 Birding. Bird watching for pleasure. Consideration of identification, songs and ecology of birds, information on bird organizations, equipment, and techniques. Credit may not be used toward a major in zoology. Two lectures per week. Offered Fall term. Cost of \$5 to \$10 may be incurred by student.

220-8 (4,4) Diversity of Animal Life. Diversity and its taxonomic treatment in animals, emphasizing structure, function, life cycles, behavior, and phylogeny. (a) Invertebrates, (b) Vertebrates. Two lectures and two 2-hour laboratories per week. Need not be taken in a, b sequence. Fall, Spring, Summer. Prerequisite: principal interest in biology.

258-2 to 4 Work Experience. Credit for prior practical experience directly related to a student's specialty in the field of zoology. The student must petition the department and provide documentation as may be necessary to assess and approve such credit. Available for elective credit only.

300-4 Vertebrate Embryology. Main features of embryonic and fetal development from fish to man. Two lectures and two 2-hour laboratories per week. Offered Fall and Spring terms. Prerequisite: 120b or 220b.

305-2 Genetics Laboratory. Experimental methods in applying basic principles of genetics. Monogenic and digenic inheritance, sex-linkage, gene interaction, linkage and chromosome mapping, mutation, artificial and natural selection, gene frequencies, and genetic drift. Two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Spring term. Prerequisite: Biology 305, or concurrent enrollment.

309-3 Elementary Cell Biology. Introduction to structure, function, and natural history of major cell types. Two lectures and one 2-hour laboratory per week. Offered Spring term. Prerequisite: consent of instructor.

314-3 Biology of Human Populations. Examines in detail three aspects of the increasing human population: its biological causes, its effects on the environment, and biological approaches for solving it. Three lectures per week. Offered Fall and Spring terms.

316-3 Insect Pests and Their Control. Classical and economic entomology including morphology, physiology, and taxonomy. Life history, damage, and control of principal injurious insects will be discussed. Two 1-hour lectures and one 2-hour laboratory per week. Credit may not be used toward a major in zoology. Offered Fall term. Prerequisite: 118 or equivalent.

318-5 Comparative Vertebrate Anatomy. The structure of vertebrate organ systems. Two lectures and three 2-hour laboratories per week. Cost of \$5 to \$10 may be incurred by student. Offered Spring term. Prerequisite: 120b or 220b.

351-4 Ecological Methods. Basic ecological field techniques for analysis of community structure and functional relationships. Two 4-hour laboratories per week. Cost of field trips may be \$5.00 to \$25.00 per student. Offered Spring term. Prerequisite: 120a, b or 220a, b and Biology 307.

375-2 Ecology of Surface Mining. Environmental characteristics, techniques of evaluating, plans for utilization and reclamation of surface mined areas. One lecture and one 2-hour laboratory or field trip per week. Credit may not be used toward a major in zoology. Cost of \$5 to \$10 may be incurred by student. Offered Summer term.

393-1 to 3 Individual Research. Research on zoological problems. Credit may not be used toward a minor in zoology. Some cost may be borne by the student. Offered Fall, Spring, and Summer terms. Prerequisite: minimum of 3.00 GPA (A is 4.00), senior standing, and approval by the proposed faculty supervisor.

402-3 Natural History of Invertebrates. Introduction to ecology, intraspecies communication and interspecies relationships of invertebrate animals. Recommended for teacher preparation programs. One lecture and two 2-hour laboratories per week. Cost of \$10 to \$20 may be incurred by student. Offered Fall term. Prerequisite: 120a or 220a.

403-3 Natural History of Vertebrates. Observation, identification, and life histories. Designed for teachers. Not for students specializing in vertebrate zoology. Cost of \$10 to \$20

may be incurred by student. One lecture and one 4-hour laboratory. Offered Spring term. Prerequisite: 120b or 220b.

406-3 Protozoology. Taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods for culture and study. One lecture and two 2-hour laboratories per week. Cost of \$5.00 may be incurred by student. Offered Fall term. Prerequisite: 120a or 220a.

407-4 Parasitology. Principles, collection, identification, morphology, life histories, and control measures. Two lectures and two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Spring term. Prerequisite: 120a or 220a.

408-3 Herpetology. Taxonomic groups, identification, morphology, and natural history of amphibians and reptiles. One lecture and two 2-hour laboratories per week. Cost of \$5.00 may be incurred by student. Offered Fall term. Prerequisite: 120b or 220b.

409-4 Vertebrate Histology. Microscopic structure of organs and tissues with emphasis on mammalian material. Two lectures and two 2-hour laboratories per week. Cost of \$5.00 may be incurred by student. Offered Spring term. Prerequisite: 10 semester hours of biological science including vertebrate biology.

410-6 (3, 3) Vertebrate Paleontology. History of vertebrate animals in terms of their morphological change, geological succession, and ecological relationships. (a) Fossil fishes, amphibians, reptiles and birds. (b) Fossil mammals. Two lectures and one 2-hour laboratory per week. Cost of \$5.00 may be incurred by student. Offered (a) Fall; (b) Spring terms. Prerequisite: 120b or 220b.

413-6 (3, 3) The Invertebrates. (a) Structure, phylogeny, and habitats of the lower invertebrates through lophophorates and deuterostomes except echinoderms. (b) structure, phylogeny, and habitats of the higher invertebrates including echinoderms, molluscs, annelids, and arthropods. Three 2-hour laboratories per week. Cost of \$5 may be incurred by the student. Offered Spring term, (a) in alternate even years; (b) alternate odd years. Cost of \$5 may be incurred by student. Prerequisite: 220a.

414-4 Freshwater Invertebrates. Taxonomic groups, identification, distribution, and habitats of the North American freshwater invertebrate fauna. Two lectures, two 2-hour laboratories per week. Offered Fall term. Cost of \$19 to \$20 may be incurred by student for field trips. Prerequisite: 120a or 220a.

415-3 Limnology. Lakes and inland waters; the organisms living in them, and the factors affecting these organisms. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of \$15 to \$20 may be incurred by student. Offered Fall term. Prerequisite: 120a or 220a.

421-4 Histological Techniques. Methods of preparing animal tissue for microscopic study and learn theories of staining and histochemistry. One lecture and two 3-hour laboratories per week. Cost of \$15 may be incurred by student. Offered Fall term. Prerequisite: 10 semester hours of biological science.

426-3 Comparative Endocrinology. Comparison of mechanisms influencing hormone release, hormone biosynthesis, and the effects of hormones on target tissues. Includes ablation and histology of glands and chemical and bio-assays with vertebrates and invertebrates. Two lectures and one 2-hour laboratory per week. Cost of \$5 to \$10 may be incurred by student. Offered Spring term. Prerequisite: consent of instructor.

441-3 Emergence of Order in Biological Systems. From the molecular to any desired higher level of biological organization: systemic, cybernetic, evolutionary, and thermodynamic principles. Two lectures and one 2-hour laboratory per week. Cost of \$5.00 may be incurred by student. Offered Fall term. Prerequisite: consent of instructor.

460-2 Upland Game Birds. Identification, life history, ecology, and management. One lecture and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to \$25 per student. Prerequisite: 220b or consent of instructor.

461-3 Mammalogy. Taxonomic groups, identification, and natural history of mammals. One hour lecture and two 2-hour laboratories per week. Cost of \$10 may be incurred by student. Offered Fall term. Prerequisite: 120b or 220b.

462-2 Waterfowl. Identification, life history, ecology, and management. One lecture and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to \$25 per student. Prerequisite: 220b or consent of instructor.

465-3 Ichthyology. Taxonomic groups, identification, and natural history of fishes. Two lectures and one 2-hour laboratory per week. Cost of \$10 may be incurred by student. Offered Spring term. Prerequisite: 120b or 220b.

466-3 Fish Management. Sampling, age and growth, dynamics, habitat improvement, manipulation of fish populations, and management of freshwater and marine fish stock. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of field trips up to \$25 per student. Offered Fall term. Prerequisite: 10 hours of biological science.

467-3 Ornithology. Classification and recognition of birds and the study of their songs, nests, migratory habits, and other behavior. One lecture and two 2-hour laboratories per week. Cost of field trips may be up to \$20 per student. Offered Spring term. Prerequisite: 120b or 220b.

- 468-4 (2, 2) Wildlife Biology.** Basic concepts and techniques employed in managing wild-life populations and their associated ecosystems. A basic ecology course is desirable as background for this course. (a) Principles. Two 1-hour lectures per week. (b) Techniques. One 4-hour laboratory session per week, three or four of which will be field trips on Saturdays. Cost of field trips up to \$25 per student may be incurred. Offered Fall term. Prerequisite: 10 semester hours of biological science; plus for zoology majors, concurrent enrollment in 468b.
- 471-3 Entomology.** Structure, classification, and life histories of insects. One lecture and two 2-hour laboratories per week. Offered Fall term. Cost up to \$20 may be incurred by student for field trips. Prerequisite: 120a or 220a.
- 473-3 Aquatic Entomology.** Structure, classification, and biology of aquatic insects. One lecture and two 2-hour laboratories per week. Cost up to \$20 may be incurred by student. Offered Spring term. Prerequisite: 120a or 220a.
- 478-3 Animal Behavior.** Biological basis of the behavior of animals. Two lectures and one 2-hour laboratory per week. Prerequisite: one year of biological science or permission of instructor.
- 479-2 to 5 Concepts in Animal Behavior.** Terms and concepts relevant to the study of animal behavior. Guided self-instructional format, with two 1-hour and one 3-hour period scheduled weekly, primarily as question-answer and evaluation sessions. Offered Spring term. Prerequisite: one year of biological science or permission of instructor.
- 480-2 to 5 Research Methods in Animal Behavior.** Skills relevant to doing research in animal behavior. Guided self-instructional format, with two 3-hour periods scheduled weekly, primarily as question-answer and evaluation sessions. Cost of up to \$25 may be incurred by student. Offered Fall term. Prerequisite: at least two hours of *B* work in 478 or 479, or permission of instructor.
- 482-1 Zoology Seminar for Seniors.** Classical and contemporary topics in zoology. This requirement will normally be met by participating in the regular meeting of the seminar. In lieu of seminar attendance and with consent of departmental chairman, the student may elect to prepare and give an oral presentation at a special seminar on an agreed upon research topic. One meeting per week. Offered Fall, Spring, Summer terms. Not for graduate credit. Prerequisite: senior standing or 24 hours of life sciences completed. Mandatory Pass/Fail.
- 496-2 to 4 Zoology Field Studies.** A trip of four to eight weeks to acquaint students with animals in various environments and with methods of field study, collection, and preservation. Cost of \$25 may be incurred by the student. Offered Fall, Spring, Summer terms. Prerequisite: consent of department.
- 508-2 Helminthology.**
- 512-2 Animal Geography.**
- 514-3 Advanced Entomology.**
- 520-3 Advanced Invertebrates.**
- 521-3 Advanced Limnology.**
- 525-3 Cytology.** (Same as Botany 525.)
- 540-3 Factors in Animal Reproduction.**
- 542-3 Osteology.**
- 561-3 Game Mammals.**
- 566-3 Fish Culture.**
- 567-1 to 4 Techniques in Fish Culture and Fish Management.**
- 573-3 Physiological Ecology.**
- 577-2 Population Ecology.**
- 578-2 Population Genetics.**
- 580-3 Advanced Taxonomy.**
- 581-2 Zoological Literature.**
- 582-1 to 4 (1, 1, 1, 1) Graduate Zoology Seminars.**
- 583-1 Teaching Zoology in College**
- 585- 27 (3, 3, 3, 3, 3, 3, 3, 3, 3) Seminar.**
- 593-1 to 8 Individual Research.**
- 599-1 to 8 Research and Thesis.**
- 600-1 to 32 Research and Dissertation.**

Accountancy (College of Business and Administration)

- BARRON, MARY NOEL, Associate Professor, C.P.A., M.B.A., University of Michigan, 1946.
 BURGER, CLIFFORD R., Professor, C.P.A., M.S., Indiana State University, 1947.
 BURNS, JANICE, Instructor, C.P.A., M.B.A., Murray State University, 1975.
 ERIKSEN, DOUGLAS C., Associate Professor, C.P.A., C.M.A., Ph.D., University of Missouri/Columbia, 1968.
 GALLEGLY, ROBERT L., Associate Professor, *Emeritus*, A.M. University of Illinois, 1947.
 GLICK, JOHN R., Assistant Professor, D.B.A., University of Colorado, 1975.
 NEAL, PHILLIP G., Instructor, C.P.A., M.S., University of Illinois, 1975.
 OGDEN, SUSIE, Associate Professor, *Emerita*, A.M. University of Illinois, 1931.
 SCHMIDLEIN, EDWARD J., JR., Professor, C.P.A., Ph.D., New York University, 1953.
 STERNER, JULIA, C.P.A., M.B.A., Southern Illinois University, 1975.
 SWICK, RALPH D., Professor, C.P.A., D.B.A., Indiana University, 1954.
 TUCKER, MARVIN W., Associate Professor, Ph.D., University of Alabama, 1966.
 WHITE, JACKSON A., Professor and *Chairman*, C.P.A., Ph.D., Louisiana State University, 1964.
 WOELFEL, CHARLES J., Professor, C.P.A., Ph.D., University of Texas, 1957.
 WRIGHT, ROLAND M., Professor, C.P.A., Ph.D., University of Iowa, 1962.

Administrative Sciences (College of Business and Administration)

- BATEMAN, DAVID N., Associate Professor, Ph.D., Southern Illinois University, 1970.
 BEDWELL, R. RALPH, Associate Professor, *Emeritus*, Ph.D., Southern Illinois University, 1969.
 BUSSOM, ROBERT S., Assistant Professor and *Chairman*, Ph.D., Ohio State University, 1973.
 FOHR, JOHN M., Professor, Ed.D., Michigan State University, 1959.
 HUNT, JAMES G., Professor, Ph.D., University of Illinois, 1966.
 JAUCH, LAWRENCE R., Associate Professor, Ph.D., University of Missouri-Columbia, 1973.
 LARSON, LARS L., Associate Professor, Ph.D., University of Illinois, 1971.
 MARTIN, THOMAS N., JR., Assistant Professor, Ph.D., University of Iowa, 1977.
 OSBORN, RICHARD N., Associate Professor, D.B.A., Kent State University, 1971.
 REEVES, GARY, Assistant Professor, D.S., Washington University, 1973.
 REHN, HENRY J., Professor, *Emeritus*, Ph.D., University of Chicago, 1930.
 SCOTT, JOHN W., Professor, *Emeritus*, Ph.D., University of Chicago, 1930.
 SEKARAN, UMA, Assistant Professor, Ph.D., University of California-Los Angeles, 1977.
 VICARS, WILLIAM M., Associate Professor, Ph.D., Southern Illinois University, 1969.
 WESTBERG, WILLIAM C., Professor, Ph.D., Pennsylvania State University, 1948.
 WILSON, HAROLD K., Assistant Professor, D.B.A., University of Colorado, 1972.

Aerospace Studies

- BANNON, KENNETH R., Adjunct Instructor
 CROW, SAMUEL A., II, Adjunct Assistant Professor, M.A., Chapman College, 1975.
 DEIGNAN, FRANCIS X., Adjunct Assistant Professor, M.Ed., University of Massachusetts, 1973.
 LESSER, STUART J., Adjunct Instructor.
 MOREY, WILLIAM F., Adjunct Professor, M.A., Oklahoma University, 1972.
 POTTS, ROBERT L., Adjunct Instructor

Agricultural Industries (School of Agriculture)

BENTON, RALPH A., Professor, *Emeritus*, Ph.D., University of Illinois, 1955.
 DOERR, WILLIAM A., Assistant Professor, Ph.D., Southern Illinois University, 1973.
 HERR, WILLIAM MCD., Professor, Ph.D., Cornell University, 1954.
 KEEPPER, WENDELL E., Professor, *Emeritus*, Ph.D., Cornell University, 1938.
 LEGACY, JAMES, Assistant Professor, Ph.D., Cornell University, 1976.
 LYBECKER, DONALD W., Associate Professor, Ph.D., Iowa State University, 1970.
 PATERSON, JOHN J., Associate Professor, *Emeritus*, M.S., University of Saskatchewan, 1943, 1957.
 SOLVERSON, LYLE, Associate Professor, Ph.D., University of Wisconsin, 1967.
 STITT, THOMAS R., Professor, Ph.D., Ohio State University, 1967.
 SYMONS, WILLIAM B., Assistant Professor, Ph.D., Ohio State University, 1975.
 WILLS, WALTER J., Professor, Ph.D., University of Illinois, 1952.
 WOLFF, ROBERT L., Associate Professor, Ph.D., Louisiana State University, 1971.
 WOOD, EUGENE S., Professor and *Chairman*, Ed.D., University of Missouri, 1958.

Allied Health and Public Services (School of Technical Careers)

BOBEK, SUSAN C., Adjunct Instructor, Nursing.
 BRYANT, BILLY JOE, Researcher, Rural Allied Health Manpower Project.
 BUSHEE, ELEANOR J., Professor, Dental Hygiene, D.D.S., Northwestern University, 1948.
 BYKOWSKI, PETER, Instructor, Dental Laboratory Technology.
 CATTOOR, KAREN S., Adjunct Instructor, Allied Health Careers Specialties.
 DENNIS, PATRICIA G., Adjunct Instructor, Allied Health Careers Specialties.
 DETOMASI, MARILYN, Researcher, Rural Allied Health Manpower Project, B.S., St. Louis University, 1964.
 DURR, MICHAEL, Visiting Assistant Professor, Dental Hygiene, D.M.D., Washington University, 1976.
 EDWARDS, MARY C., Associate Professor, Dental Hygiene, M.A. in Ed., University of San Francisco, 1962.
 ELLIOTT, JAMES R., Associate Professor, Dental Hygiene, D.D.S., University of Tennessee, 1953.
 ENTERMAN, CYNTHIA JO, Visiting Instructor, Dental Hygiene, B.S., University of South Dakota, 1976.
 FITTS, BENNIE D., Adjunct Assistant Professor, Dental Hygiene, D.D.S., University of Tennessee, 1963.
 FRAVELL, EDWARD L., Adjunct Instructor, Allied Health Careers Specialties, B.S., University of Wisconsin, 1957.
 GAVIN, BONNIE SUE, Visiting Instructor, Dental Hygiene, B.G.S., University of South Carolina, 1976.
 GREENE, BARBARA, Instructor, Physical Therapist Assistant, A.B., Stanford University, 1952.
 HEES, ALICE JANE, Assistant Professor, Nursing, M.S., University of Colorado, 1960.
 HERTZ, DONALD G., Associate Professor, Mortuary Science and Funeral Service, Ed.M., University of Oklahoma, 1953.
 HUCKELBERRY, LOWELL L., Adjunct Instructor, Allied Health Careers Specialties.
 IJAMS, KAYLEONNE, Assistant Professor, Dental Laboratory Technology, B.S., Southern Illinois University, 1973.
 JOHNSON, EDNA M., Adjunct Instructor, Allied Health Careers Specialties.
 KALBFLEISCH, LEE M., Adjunct Instructor, Allied Health Careers Specialties.
 KLUGMAN, GARY, Adjunct Assistant Professor, Dental Hygiene, D.M.D., Washington University, 1975.
 KUBERSKI, ROGER J., Adjunct Instructor, Allied Health Careers Specialties.
 LAAKE, DENNIS, Assistant Professor, Dental Laboratory Technology, M.S. Ed., Southern Illinois University, 1973.
 LEFEVRE, HAZEL L., Adjunct Instructor, Nursing, B.S. in Nursing Education, Columbia University, 1950.
 LEWIS, GARRY L., Adjunct Instructor, Allied Health Careers Specialties.
 LUGENBEEL, ARCH, Assistant Professor, Rural Allied Health Manpower Project, M.Ed., University of South Carolina, 1964.
 MCCOY, BARBARA J., Adjunct Instructor, Nursing.
 MOOS, ANN H., Visiting Instructor, Dental Hygiene, A.S., William Rainey Harper College, 1974.
 MORRIS, STEPHEN W., Adjunct Instructor, Allied Health Careers Specialties.
 NEEDHAM, BILLY J., Adjunct Instructor, Allied Health Careers Specialties.
 OKITA, TED Y., Associate Professor, Physical Therapist Assistant, M.A., Northwestern University, 1964.
 PAULK, MARILYN, Assistant Professor, Dental Hygiene, B.S., Southern Illinois University, 1975.

POSTON, GEORGE H., Instructor, Mortuary Sciences and Funeral Service, B.A., McKendree College, 1969.
 RIPLEY, AUDREE J., Adjunct Instructor, Nursing, B.S.N., Evansville University, 1963.
 SCHUBERT, JOHN D., Adjunct Instructor, Allied Health Careers Specialties.
 SOTO, CARLOS, Researcher, Rural Allied Health Manpower Project, B.S., Southern Illinois University, 1976.
 STARK, ANNE, Adjunct Instructor, Dental Hygiene, B.S., Southern Illinois University, 1974.
 STEIDER, NANCY, Instructor, Dental Hygiene, B.S., Southern Illinois University, 1976.
 TENNYSON, DANIEL, Instructor, Dental Laboratory Technology, A.T., Southern Illinois University, 1971.
 TESTORY, RENEE L., Instructor, Dental Hygiene, B.S., Southern Illinois University, 1975.
 VOORHEES, CAROL D., Adjunct Instructor, Allied Health Careers Specialties.
 WEBER, JAMES A., Adjunct Instructor, Allied Health Careers Specialties.
 WESTPHAL, DWIGHT, Visiting Instructor, Dental Laboratory Technology.
 WOHLWEND, LINDA, Instructor, Dental Hygiene, B.S., Southern Illinois University, 1974.

Animal Industries (School of Agriculture)

ARTHUR, ROBERT, Assistant Professor, Ph.D., University of Missouri, 1970.
 GOODMAN, BILL L., Professor, Ph.D., Ohio State University, 1959.
 HAUSLER, CARL L., Assistant Professor, Ph.D., Purdue University, 1970.
 HINNERS, SCOTT W., Professor, Ph.D., University of Illinois, 1958.
 HODSON, HAROLD H., JR., Professor and *Chairman*, Ph.D., Iowa State University, 1965.
 KAMMLADE, W. G., JR., Associate Professor, Ph.D., University of Illinois, 1951.
 KROENING, GILBERT H., Professor, Ph.D., Cornell University, 1965.
 LEE, D. DIXON, JR., Associate Professor, Ph.D., North Carolina State University, 1970.
 MALES, JAMES R., Assistant Professor, Ph.D., Ohio State University, 1973.
 OLSON, HOWARD H., Professor, Ph.D., University of Minnesota, 1952.
 REED, ALEX, Professor, *Emeritus*, Ph.D., University of Illinois, 1953.
 STRACK, LOUIS E., Associate Professor, D.V.M., University of Illinois, 1961.

Anthropology (College of Liberal Arts)

BENDER, M. LIONEL, Associate Professor and *Acting Chairman*, Ph.D., University of Texas at Austin, 1968.
 BRAUN, DAVID P., Assistant Professor, Ph.D., University of Michigan, 1977.
 COOK, EDWIN A., Associate Professor, Ph.D., Yale University, 1967.
 DARK, PHILIP J. C., Professor, Ph.D., Yale University, 1954.
 FALK, DEAN, Assistant Professor, Ph.D., University of Michigan, 1977.
 GUMERMAN, GEORGE J., Professor, Ph.D., University of Arizona, 1969.
 HANDLER, JEROME S., Professor, Ph.D., Brandeis University, 1965.
 KELLEY, J. CHARLES, Professor, *Emeritus*, Ph.D., Harvard University, 1948.
 MacLACHLAN, BRUCE B., Associate Professor, Ph.D., University of Chicago, 1962.
 MARING, ESTER G., Assistant Professor, Ph.D., Indiana University, 1969.
 MARING, JOEL M., Associate Professor, Ph.D., Indiana University, 1967.
 MULLER, JON D., Associate Professor, Ph.D., Harvard University, 1967.
 RANDS, ROBERT L., Professor, Ph.D., Columbia University, 1952.
 RILEY, CARROLL L., Professor, Ph.D., University of New Mexico, 1952.
 TAYLOR, WALTER W., Professor, *Emeritus*, Ph.D., Harvard University, 1943.

Applied Technologies (School of Technical Careers)

ALBERT, JOSEPH J., Instructor, Automotive Technology, B.S., Southern Illinois University, 1971.
 BASSETT, FRANKLIN A., Assistant Professor, *Emeritus*, Construction Technology, B.S., University of Illinois, 1948.
 BEAUCHAMP, CLARENCE, Assistant Professor, *Emeritus*, M.S., University of Wisconsin, Stout, 1949.
 BRANSON, CARL E., Instructor, Construction Technology, B.S., Southern Illinois University, 1974.
 BROWN, TERENCE, Assistant Professor, Photographic and Audio-Visual Technology, Ph.D., Southern Illinois University, 1975.
 CASH, JOE R., Assistant Professor, Automotive Technology, M.S.Ed., Southern Illinois University, 1970.
 CRENSHAW, J. HOWARD, Instructor, *Emeritus*, Mathematics and Science, M.S., University of Illinois, 1940.
 DALLMAN, MURNICE, Associate Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1960.
 DELMASTRO, EDWIN V., Instructor, Photographic and Audio-Visual Technology and Commercial Graphics Production.

- GREER, JACK, Instructor, Automotive Technology, B.S., Southern Illinois University, 1974.
- HARBISON, JAMES L., Instructor *Emeritus*, Mathematics and Science, M.S. University of Illinois, 1940.
- HOYLE, ORVILLE GLENN, Instructor, *Emeritus*, Tool and Manufacturing Technology, B.Ed., Western Illinois University, 1931.
- JONES, PAUL, Instructor, *Emeritus*, Automotive Technology.
- KAZDA, JOSEPH G., Assistant Professor, Automotive Technology, M.S.Ed., Southern Illinois University, 1965.
- LAMPMAN, DUNCAN, Associate Professor, Tool and Manufacturing Technology and Construction Technology, M.S.Ed., Southern Illinois University, 1956.
- MAILLOUX, LAWRENCE, Assistant Professor, Commercial Graphics—Design, B.F.A., Rhode Island School of Design, 1947.
- MARTIN, KENNETH D., Assistant Professor, Commercial Graphics.
- MCDONALD, JAMES H., Instructor, *Emeritus*, Automotive Technology, B.S.Ed., Central Missouri State University, 1948.
- MUHICH, FRANK W., Associate Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1957.
- O'LOUGHLIN, JOHN, Instructor, Automotive Technology, A.T., Southern Illinois University, 1971.
- OSBORN, HAROLD W., Assistant Professor, Construction Technology, M.S.Ed., Southern Illinois University, 1960.
- RAY, O. B., Instructor, *Emeritus*, Automotive Technology, B.S., Murray State University, 1934.
- ROMACK, CHARLES, Assistant Professor, Automotive Technology, B.S., Southern Illinois University, 1965.
- RUNKLE, LEWIS C., Assistant Professor, *Emeritus*, Automotive Technology, M.E., Colorado State University, 1962.
- SCHINDLER, RICHARD, Instructor, Commercial Graphics. A.A., Southern Illinois University, 1973.
- SCHULTZ, RAYMOND, Assistant Professor, *Emeritus*, Electronics Technology.
- SIMON, ERNEST J., Professor, *Emeritus*, M.S., University of Illinois 1936.
- SODERSTROM, HARRY R., Professor and *Chairman*, Tool and Manufacturing Technology, M.S., Bradley University, 1952.
- STALEY, GLENN LAMB, Instructor, Construction Technology, M.S., Southern Illinois University, 1976.
- SUTTON, JOHN R., Assistant Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1969.
- TRAYLOR, GEORGE LELON, Associate Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1965.
- TREGONING, PHILIP, Assistant Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1973.
- WHITE, JAMES E., Assistant Professor, Photographic and Audio-Visual Technology, M.S.Ed., Southern Illinois University, 1962.
- WHITE, ROBERT, Assistant Professor, Photographic and Audio-Visual Technology, M.S. in Ed., Southern Illinois University, 1962.
- WILLEY, LUCIAN D., Associate Professor, *Emeritus*, Automotive Technology, B.Ed., Western Illinois University, 1936.
- YACK, JOHN L., Assistant Professor, Commercial Graphics, M.F.A., University of Oklahoma, 1959.

Art (College of Communications and Fine Arts)

- ABRAHAMSON, ROY E., Associate Professor Ed.D., Columbia University, 1965.
- ADDINGTON, ALDON M., Assistant Professor M.F.A., Cranbrook Academy of Art, 1966.
- BARONE, VIOLET TROVILLION, Assistant Professor, *Emerita*, M.A., George Peabody College for Teachers, 1955.
- BEENE, PATRICIA C., Instructor, M.S.Ed., Southern Illinois University, 1974.
- BERNSTEIN, LAWRENCE A., Associate Professor, M.F.A., Cranbrook Academy of Art, 1953.
- BOYSEN, BILL H., Associate Professor, M.F.A., University of Wisconsin, 1966.
- DELLER, HARRIS, Lecturer, M.F.A., Cranbrook Academy of Art, 1973.
- FEHM, SHERWOOD A., Associate Professor, Ph.D., Yale University, 1971.
- FELDMAN, JOEL B., Assistant Professor, M.F.A., Indiana University, 1967.
- FINK, HERBERT L., Professor, M.F.A., Yale University, 1958.
- GREENFIELD, SYLVIA R., Assistant Professor, M.F.A., University of Colorado, 1967.
- JOHNSON, EVERT A., Lecturer, M.A., University of Iowa, 1954.
- KINGTON, L. BRENT, Professor, M.F.A., Cranbrook Academy of Art, 1961.
- LAWSON, ELNORA, Instructor, *Emerita*, B.Ed., Southern Illinois University, 1936.
- LINTAULT, M. JOAN, Associate Professor, M.F.A., Southern Illinois University, 1962.

LITTLEFIELD, F. LEE, Assistant Professor, M.A., University of New Mexico, 1968.
 LOYD, JAN BROOKS, Instructor, M.F.A., Southern Illinois University, 1974.
 MAVIGLIANO, GEORGE J., Assistant Professor, M.A., Northern Illinois University, 1967.
 ONKEN, MICHAEL O., Assistant Professor, M.A., Northern Illinois University, 1966.
 PAULSON, ROBERT L., Assistant Professor, M.F.A., University of Wisconsin, 1967.
 ROACH, LULA D., Associate Professor, *Emerita*, M.A., Washington University, 1953.
 SULLIVAN, JAMES E., Associate Professor, M.A., University of California at Los Angeles, 1965.
 SULLIVAN, MILTON F., Professor and *Director*, M.A., Columbia University, 1951.
 WALSH, THOMAS J., Professor, M.F.A., University of Michigan, 1962.
 WOOD, DAN D., Assistant Professor, M.A., University of Iowa, 1968.

Aviation Technologies (School of Technical Careers)

BIRKHEAD, LARRY M., Assistant Professor, Avionics Technology, 1973.
 BURKEY, PAUL D., Instructor, Aviation Technology, 1968.
 CANNON, RICHARD H., Assistant Professor, Aviation Technology, 1966.
 DAROSA, EDMUND A., Professor and Chairman, Aviation Technology, B.A., College of Saint Joseph, Portugal, 1936.
 HARTSEL, DONALD R., JR., Instructor, Avionics Technology, 1973.
 KOLKMEYER, ROBERT O., Assistant Professor, Aviation Technology, M.S.Ed., Southern Illinois University, 1971.
 MCKEOWN, JAMES D., Instructor, Aviation Technology, A.A.S., Southern Illinois University, 1974.
 OHMAN, LENNERT R., Assistant Professor, Aviation Technology, B.S., University of Illinois, 1964.
 RICH, DAVID L., Assistant Professor, Aviation Technology, 1968.
 RODRIGUEZ, CHARLES L., Visiting Instructor, Aviation Technology, A.A., Southern Illinois University, 1977.
 SCHAFER, JOSEPH A., Assistant Professor, Aviation Technology, B.S., Lewis College, 1960.
 STAPLES, LAURENCE C., Instructor, Aviation Technology, B.S., Southern Illinois University, 1975.
 TEAGUE, JAMES T., Instructor, Aviation Technology, B.S., Southern Illinois University, 1970.
 VERNER, GERRY D., Instructor, Aviation Technology, B.S., Southern Illinois University, 1973.
 WHITACRE, GERRY LEE, Assistant Professor, Aviation Technology, B.S., Southern Illinois University, 1975, 1976.

Botany (College of Science)

ASHBY, WILLIAM C., Professor, Ph.D., University of Chicago, 1950.
 BISSING, DONALD R., Assistant Professor, Ph.D., Claremont Graduate School, 1976.
 MARBERRY, WILLIAM M., Assistant Professor, *Emeritus*, University of Illinois, 1936.
 MATTEN, LAWRENCE C., Professor, Ph.D., Cornell University, 1965.
 MOHLENBROCK, ROBERT H., Professor and *Chairman*, Ph.D., Washington University, 1957.
 OLAH, LADISLAO V., Professor, *Emeritus*, Ph.D., Stephen Tisza University, Hungary, 1934.
 PAPPELIS, ARISTOTEL J., Professor, Ph.D., Iowa State University, 1957.
 ROBERTSON, PHILIP A., Assistant Professor, Ph.D., Colorado State University, 1968.
 SCHMID, WALTER E., Professor, Ph.D., University of Wisconsin, 1961.
 STOTLER, BARBARA C., Associate Professor, Ph.D., University of Cincinnati, 1968.
 STOTLER, RAYMOND E., Associate Professor, Ph.D., University of Cincinnati, 1968.
 SUNDBERG, Walter J., Associate Professor, Ph.D., University of California, 1971.
 TINDALL, DONALD R., Associate Professor, Ph.D., University of Louisville, 1966.
 UGENT, DONALD, Associate Professor, Ph.D., University of Wisconsin, 1966.
 VERDUIN, JACOB, Professor, Ph.D., Iowa State University, 1947.
 VOIGT, JOHN W., Professor, Ph.D., University of Nebraska, 1950.
 WELCH, WALTER B., Professor, *Emeritus*, Ph.D., University of Chicago, 1937.
 YOPP, JOHN H., Associate Professor, Ph.D., University of Louisville, 1969.

Center for the Study of Crime, Delinquency, and Corrections (College of Human Resources)

ANDERSON, DENNIS, Assistant Professor, Ed.D., University of Nebraska, 1970.
 BASCOM, PATRICIA, J., Academic Adviser, M.S., Southern Illinois University, 1976.
 BENNETT, LAWRENCE A., Associate Professor and Director, Ph.D., Claremont Graduate School, 1968.

COUGHLIN, JOSEPH S., Professor, M.S.W., University of Wisconsin, 1954.
 DREHER, ROBERT H., Associate Professor, J.D., University of Illinois, 1940.
 JOHNSON, ELMER H., Professor, Ph.D., University of Wisconsin, 1950.
 KIEFER, GEORGE W., Instructor, M.A., Southern Illinois University, 1976.
 KLYMAN, FRED I., Associate Professor, Ed.D., Oklahoma State University, 1973.
 MATTHEWS, CHARLES V., Associate Professor, M.A., University of Kansas City, 1951.
 RICH, VERNON, Associate Professor, Ph.D., Michigan State University, 1971.
 WILSON, KENNETH G., Assistant Professor, Ph.D., Kansas State University, 1973.
 WILSON, Nanci K., Assistant Professor, Ph.D., University of Tennessee, 1972.

Chemistry and Biochemistry (College of Science)

ARNOLD, RICHARD T., Professor, Ph.D., University of Illinois, 1937.
 BAILEY, JAMES M., Assistant Professor, Ph.D., University of North Carolina, 1973.
 BEMILLER, JAMES N., Professor, Ph.D., Purdue University, 1959.
 BEYLER, ROGER E., Professor, Ph.D., University of Illinois, 1949.
 BOLEN, D. WAYNE, Associate Professor, Ph.D., Florida State University, 1969.
 BROWN, GEORGE E., Professor, *Emeritus*, Ph.D., Iowa State University, 1941.
 CASKEY, ALBERT L., Associate Professor, Ph.D., Iowa State University, 1961.
 COX, JAMES A., Associate Professor, Ph.D., University of Illinois, 1967.
 EMPTAGE, MICHAEL R., Assistant Professor, Ph.D., Harvard University, 1965.
 GUYON, JOHN C., Professor, Ph.D., Purdue University, 1961.
 HADLER, HERBERT I., Professor, Ph.D., University of Wisconsin, 1952.
 HADLEY, ELBERT H., Professor, Ph.D., Duke University, 1940.
 HALL, J. HERBERT, Professor, Ph.D., University of Michigan, 1959.
 HARGRAVE, PAUL A., Assistant Professor, Ph.D., University of Minnesota, 1970.
 HINCKLEY, CONRAD C., Associate Professor, Ph.D., University of Texas, 1964.
 KOSTER, DAVID F., Associate Professor, Ph.D., Texas A & M University, 1965.
 MEYERS, CAL Y., Professor, Ph.D., University of Illinois, 1951.
 NECKERS, J. W., Professor, *Emeritus*, Ph.D., University of Illinois, 1927.
 SCHMIT, JOSEPH, Assistant Professor, Ph.D., Purdue University, 1971.
 SCHMULBACH, C. DAVID, Professor and *Chairman*, Ph.D., University of Illinois, 1958.
 SLOCUM, DONALD W., Professor, Ph.D., New York University, 1963.
 SMITH, GERARD V., Professor, Ph.D., University of Arkansas, 1959.
 SUNG, MICHAEL T., Associate Professor, Ph.D., University of Wisconsin, 1968.
 TRIMBLE, RUSSELL F., Professor, Ph.D., Massachusetts Institute of Technology, 1951.
 TYRRELL, JAMES, Associate Professor, Ph.D., University of Glasgow, 1963.
 VAN LENTE, KENNETH A., Professor, *Emeritus*, Ph.D., University of Michigan, 1931.
 WOTIZ, JOHN H., Professor, Ph.D., Ohio State University, 1948.

Cinema and Photography (College of Communications and Fine Arts)

ABTEY, JEAN-PIERRE, Visiting Assistant Professor, M.A., Pepperdine University, 1976.
 BLUMENBERG, RICHARD M., Associate Professor, Ph.D., Ohio University, 1969.
 BUKALSKI, PETER J., Associate Professor and *Chairman*, Ph.D., Ohio State University, 1975.
 COCKING, LOREN D., Assistant Professor, M.A., Ohio State University, 1969.
 COVELL, MICHAEL D., Assistant Professor, M.F.A., Ohio University, 1975.
 GILMORE, DAVID A., Associate Professor, M.F.A., Ohio University, 1969.
 HORRELL, C. WILLIAM, Professor, Ed.D., Indiana University, 1955.
 MERCER, JOHN, Professor, Ph.D., University of Nebraska, 1952.
 PAINE, FRANK, Associate Professor, B.S., Iowa State University, 1950.
 SWEDLUND, CHARLES A., Professor, M.S., Illinois Institute of Technology, 1961.
 ZIRPOLA, DONALD J., Assistant Professor, M.F.A., University of Southern California, 1973.

Comprehensive Planning and Design (College of Human Resources)

ALLEN, ALBERT L., Adjunct Instructor, M.S., Southern Illinois University, 1977.
 ARCHER, RICHARD, Instructor, B.A., Southern Illinois University, 1970.
 BERRY, THELMA HUFF, Professor, *Emerita*, Ed.D., Columbia University, 1963.
 BUSCH, W. LARRY, Assistant Professor, M.S., Southern Illinois University, 1970.
 CARAWAY, JEANINE, Instructor, M.S., Kansas State University, 1974.
 DAVIS, NANCY K., Instructor, M.F.A., University of Georgia, 1976.
 ELLNER, JACK R., Professor, Ph.D., New York University, 1969.
 FERGUSON, K. JAMES, Adjunct Professor, B.I.D., University of Manitoba, 1950.
 FRIEND, SHIRLEY E., Associate Professor, Ed.D., University of Arkansas, 1969.
 GROROWSKY, HAROLD, Lecturer, Certificate, IIT, Institute of Design, Chicago.
 KACHEL, THOMAS J., Instructor, M.S., Southern Illinois University, 1972.
 KULA, ELSA, Lecturer, B.F.A., Pratt Institute, Brooklyn, New York, 1977.

- LOUGEAY, PAUL J., Associate Professor, Registered Architect, M.S., Southern Illinois University, 1973.
- MACDONALD, ANTONETTE T., Instructor, M.S., Southern Illinois University, 1973.
- MERCHANT, M. JANE, Assistant Instructor, B.A., Southern Illinois University, 1968.
- NEWMAN, GERALDINE, Instructor, M.S., Southern Illinois University, 1972.
- PADGETT, ROSE, Professor, *Emerita*, Ph.D., Purdue University, 1955.
- PERK, HARRY F.W., Lecturer, A.B., University of California at Los Angeles, 1951.
- PRATT, DAVIS J., Lecturer, Certificate, University of Chicago, IIT, Institute of Design, Chicago.
- PULLEY, CHARLES M., Assistant Professor, Registered Architect, B.S., University of Illinois, 1939.
- RIDLEY, SAMANTHA SUE, Assistant Professor, M.S., Southern Illinois University, 1959.
- ROAN, HERBERT, Lecturer, Certificate, Cooper Union, 1938.
- SCHOEN, ALAN HUGH, Professor, Ph.D., University of Illinois, 1958.
- STEWART, LUCY P., Assistant Professor, *Emerita*, M.S., Southern Illinois University, 1964.
- ST. JOHN, WAYNE L., Associate Professor and *Chairman*, Ph.D., University of Oregon, 1954.
- WHITESEL, RITTA, Associate Professor, *Emerita*, M.A., Columbia University, 1941.

Computer Science (College of Liberal Arts)

- BATEMAN, BARRY L., Adjunct Professor, Ph.D., Texas A&M University, 1970.
- BLONDE, BARRY J., Adjunct Instructor, M.S., Southern Illinois University, 1971.
- DANHOF, KENNETH J., Associate Professor and *Chairman*, Ph.D., Purdue University, 1969.
- GUHA, RATAN K., Associate Professor, Ph.D., University of Texas at Austin, 1970.
- MARK, ABRAHAM M., Professor, Ph.D., Cornell University, 1947.
- NEWMAN, J. RICHARD, Adjunct Assistant Professor, Ph.D., University of Southwestern Louisiana, 1976.
- SMITH, CAROL L., Assistant Professor, Ph.D., Iowa State University, 1975.
- WRIGHT, WILLIAM E., Assistant Professor, D.Sc., Washington University, 1972.

Curriculum, Instruction, and Media (College of Education)

- ABRAMS, M. FRANCES, Teacher Education Services, M.A., Southern Illinois University, 1969.
- AIKMAN, ARTHUR L., Professor, Ph.D., Southern Illinois University, 1965.
- ALDEN, ELAINE F., Associate Professor, Ph.D., University of Pittsburgh, 1971.
- ALSTON, MELVIN O., Professor, *Emeritus*, Ed.D., Columbia University, 1945.
- ANDERSON, KAYE, Instructor, M.S. in Ed., Southern Illinois University, 1970.
- BAUNER, RUTH E., Associate Professor, M.S., University of Illinois, 1956.
- BEDIENT, DOUGLAS, Assistant Professor, Ph.D., Southern Illinois University, 1971.
- BENCINI, E. L., Assistant Professor, *Emeritus*, M.Ed., University of Missouri, 1942.
- BOYKIN, ARSENE O., Associate Professor, Ed.D., University of Illinois, 1964.
- BRADFIELD, JOYCE M., Instructor, M.A., George Peabody College for Teachers, 1946.
- BRADFIELD, LUTHER E., Professor, *Emeritus*, Ed.D., Indiana University, 1953.
- BROD. ERNEST E., Professor, *Emeritus*, Ed.D., University of Northern Colorado, 1953.
- BROWN, BILL, Instructor, *Emeritus*, M.Ed., University of Missouri, 1946.
- BUSER, MARGARET, Instructor, M.S. Ed., Indiana University, 1966.
- BUTTS, GORDON K., Professor, Ed.D., Indiana University, 1956.
- CAIRNS, JOHN H., Instructor, M.S., Iowa State University, 1971.
- CARTER, CLEO D., Associate Professor, *Emerita*, Ed.D., Indiana University, 1958.
- CASEY, JOHN P., Professor, Ed.D., Indiana University, 1963.
- CHERRY, AVENIEL, Lecturer, M.S. in Ed., Southern Illinois University, 1962.
- COX, DOROTHY, Assistant Professor, Ph.D., Southern Illinois University, 1976.
- DALE, DORIS C., Associate Professor, D.L.S., Columbia University, 1968.
- DEWEESE, JEWEL V., Instructor, M.S. Ed., Southern Illinois University, 1971.
- DIXON, BILLY G., Associate Professor, Ph.D., Southern Illinois University, 1967.
- EDWARDS, TROY W., Professor, *Emeritus*, Ed.D., Indiana University, 1954.
- FLETCHER, KATHLEEN G., Associate Professor, *Emerita*, M.S., University of Illinois, 1947.
- FLIGOR, ROSS J., Professor, *Emeritus*, Ph.D., Michigan State University, 1953.
- GRANT, FRANCIS, Assistant Professor, Ph.D., Michigan State University, 1972.
- HILL, MARGARET K., Professor, Ed.D., Boston University, 1948.
- HUNGERFORD, HAROLD R., Professor, Ph.D., Southern Illinois University, 1970.
- JACKO, CAROL, Assistant Professor, Ph.D., University of Pittsburgh, 1974.
- JACKSON, JAMES, Assistant Professor, Ph.D., University of Wisconsin, 1976.
- JACKSON, MICHAEL, Associate Professor, Ed.D., University of Florida, 1971.
- JENKINS, JEANNETTE, Lecturer, M.Ed., Pennsylvania State University, 1948.

KARMOS, ANN, Visiting Assistant Professor, Ph.D., Southern Illinois University, 1975.
 KLASEK, CHARLES B., Associate Professor, Ph.D., University of Nebraska, 1971.
 LAMB, MORRIS L., Associate Professor, Ed.D., University of Oklahoma, 1970.
 LEE, J. MURRAY, Professor, *Emeritus*, Ph.D., Columbia University, 1934.
 LINDBERG, DORMALEE H., Associate Professor, Ed.D., University of Missouri, Columbia, 1969.
 LIPSEY, WILLIAM, Lecturer, Ed.D., Northwestern University, 1952.
 LONG, RUTH A., Associate Professor, Ed.D., Indiana University, 1972.
 MALONE, WILLIS E., Professor, *Emeritus*, Ph.D., Ohio State University, 1950.
 MATTHIAS, MARGARET, Assistant Professor, Ph.D., Southern Illinois University, 1972.
 MEEHAN, ELIZABETH C., Assistant Professor, *Emerita*, A.M., University of Illinois, 1940.
 MEYER, EDRA T., Instructor, *Emerita*, M.S., Southern Illinois University, 1956.
 MOORE, ERYN E., Assistant Professor, Ph.D., Southern Illinois University, 1976.
 MORPURGO, JANE S., Assistant Professor, Ph.D., University of Illinois, 1974.
 MUELLER, RUTH E., Staff Assistant, B.S., Milwaukee State Teachers College, 1944.
 NELSON, JUDITH, Instructor, M.S., Illinois State University, 1962.
 PAIGE, DONALD D., Professor and *Departmental Executive Officer*, Ed.D., Indiana University, 1966.
 POPE, CEDRIC A., Assistant Professor, Ed.D., University of Northern Colorado, 1959.
 QUISENBERRY, JAMES D., Assistant Professor, Ph.D., Indiana University, 1972.
 QUISENBERRY, NANCY L., Associate Professor, Ed.D., Indiana University, 1971.
 RANDOLPH, VICTOR, Professor, *Emeritus*, Ph.D., George Peabody College for Teachers, 1942.
 ROY, THOMAS, Lecturer, M.S.Ed., Southern Illinois University, 1975.
 RUBBA, PETER A., Assistant Professor, Ed.D., Indiana University, 1977.
 SAMFORD, CLARENCE, Professor, *Emeritus*, Ph.D., New York University, 1940.
 SEIFERTH, BERNIECE B., Associate Professor, Ed.D., University of Missouri, 1955.
 SHELTON, VIVIAN, H. Instructor, M.S. Ed., Southern Illinois University, 1965.
 SHEPHERD, TERRY R., Associate Professor, Ph.D., University of Illinois, 1971.
 SLOAN, FRED A., Professor, Ed.D., George Peabody College for Teachers, 1959.
 SOLLIDAY, MICHAEL, Assistant Professor, Ph.D., Southern Illinois University, 1975.
 SPIGLE, IRVING S., Associate Professor, Ed.D., Indiana University, 1955.
 STEHR, JEAN, Associate Professor, M.A., Texas Woman's University, 1945.
 STEINRUCK, YVONNE, Assistant Professor, Ph.D., University of Toledo, 1973.
 STEPHENS, CLARENCE, Professor, *Emeritus*, Ed.D., Indiana University, 1955.
 TOMERA, AUDREY, Associate Professor, Ph.D., Southern Illinois University, 1973.
 TOTH, JOHN E., Instructor, M.Ed., Wright State University, 1970.
 TREECE, MADELYN, Assistant Professor, *Emerita*, A.M., University of Chicago, 1936.
 TURNER, DORIS S., Lecturer, M.S. in Ed., Southern Illinois University, 1949.
 WENDT, PAUL R., Professor, *Emeritus*, Ph.D., University of Minnesota, 1948.
 WINSOR, DONALD, Associate Professor, Ed.D., University of Florida, 1961.
 WOOD, RUTH B., Instructor, M.S., University of Illinois, 1948.

Economics (College of Liberal Arts)

ADAMS, DONALD R., JR., Associate Professor, Ph.D., University of Pennsylvania, 1967.
 BOHL, DOUGLAS R., Professor, Ph.D., Washington State University, 1967.
 EDELMAN, MILTON T., Professor, Ph.D., University of Illinois, 1951.
 ELLIS, ROBERT J., JR., Associate Professor, Ph.D., University of Virginia, 1966.
 FORAN, TERRY G., Associate Professor and *Chairman*, Ph.D., Pennsylvania State University, 1971.
 FRYMAN, RICHARD F., Associate Professor, Ph.D., University of Illinois, 1967.
 HAND, GEORGE H., Professor, *Emeritus*, Ph.D., Princeton University, 1939.
 HICKMAN, C. ADDISON, Professor, Vandever Chair of Economics, Ph.D., University of Iowa, 1942.
 LAYER, ROBERT G., Professor, Ph.D., Harvard University, 1952.
 LYON, VERN, Assistant Professor, Ph.D., University of Kansas, 1975.
 MORRISON, VERNON G., Professor, *Emeritus*, Ph.D., University of Nebraska, 1961.
 MYERS, JOHN G., Associate Professor, Ph.D., Columbia University, 1961.
 SHIELDS, MICHAEL P., Assistant Professor, Ph.D., University of Utah, 1975.
 STALON, CHARLES G., Associate Professor, Ph.D., Purdue University, 1966.
 TRACY, RONALD L., Assistant Professor, Ph.D., Michigan State University, 1975.
 VOGEL, ROBERT C., Associate Professor, Ph.D., Stanford University, 1967.
 WIEGAND, G. C., Professor, *Emeritus*, Ph.D., Northwestern University, 1950.

Educational Leadership (College of Education)

ARMISTEAD, FRED J., Professor, *Emeritus*, Ph.D., University of California, 1960.
 BACH, JACOB O., Professor, Ph.D., University of Wisconsin, 1951.
 BRACEWELL, GEORGE, Professor, *Emeritus*, Ed.D., Washington University, 1952.

- BRAMMELL, PARIS R., Professor, *Emeritus*, Ph.D., University of Washington, 1930.
 BROWNING, BARNEY K., Assistant Professor, Ph.D., Southern Illinois University, 1972.
 BRYANT, ROYE R., Professor, *Emeritus*, D.Ed., Washington University, 1952.
 BUSER, ROBERT L., Professor, Ed.D., Indiana University, 1966.
 CHILDS, JOHN L., Professor, *Emeritus*, Ph.D., Teachers College, Columbia University, 1931.
 CLARK, ELMER J., Professor, Ph.D., University of Michigan, 1949.
 DENNIS, LAWRENCE J., Associate Professor, Ph.D., Southern Illinois University, 1968.
 DUFF, GRACE H., Assistant Professor, Ph.D., Southern Illinois University, 1970.
 EATON, WILLIAM E., Associate Professor, Ph.D., Washington University, 1971.
 EWING, PARMER L., Professor, *Emeritus*, Ed.D., New York University, 1950.
 FISHBACK, WOODSON W., Associate Professor, *Emeritus*, Ph.D., University of Chicago, 1947.
 HALL, JAMES H., Associate Professor, *Emeritus*, Ed.D., George Washington University, 1950.
 JACOBS, ROBERT, Professor, *Emeritus*, Ed.D., Wayne State University, 1949.
 KAISER, DALE E., Professor, Ph.D., University of Illinois, 1963.
 LAWLER, EUGENE S., Professor, *Emeritus*, Ph.D., Columbia University, 1032.
 LEAN, ARTHUR E., Professor, *Emeritus*, Ph.D., University of Michigan, 1948.
 MATTHIAS, WILLIAM, Associate Professor, Ed.D., University of Illinois, 1964.
 McKENZIE, WILLIAM R., Professor, Ed.D., University of Denver, 1953.
 MERWIN, BRUCE W., Professor, *Emeritus*, Ph.D., University of Kansas, 1929.
 MILLER, HARRY G., Professor and *Chairman*, Ed.D., University of Nebraska, 1970.
 MOORE, MALVIN E., Professor, Ed.D., George Peabody College for Teachers, 1959.
 NEAL, CHARLES D., Professor, *Emeritus*, Ed.D., Indiana University, 1948.
 PARKER, JAMES C., Associate Professor, Ed.D., University of Tennessee, 1971.
 RIPPLE, KENNETH E., Associate Professor, Ed.D., Michigan State University, 1968.
 SASSE, EDWARD B., Professor, Ph.D., University of Wisconsin, 1966.
 SHELTON, WILLIAM E., Associate Professor, Ph.D., University of Chicago, 1950.
 STUCK, DEAN, Professor, Ph.D., Iowa State University, 1968.
 VERDUIN, JOHN R., JR., Professor, Ph.D., Michigan State University, 1962.
 WARREN, F. G., Professor, *Emeritus*, A.M., University of Chicago, 1928.
 WOHLWEND, HERBERT W., Associate Professor, Ph.D., Southern Illinois University, 1964.

Electrical Sciences and Systems Engineering (School of Engineering and Technology)

- ASHWORTH, EDWIN ROBERT, Assistant Professor, Ph.D., Southern Illinois University, 1972.
 DODD, CURTIS W., Associate Professor, Ph.D., Arizona State University, 1967.
 DUNNING, E. LEON, Professor, Ph.D., University of Houston, 1967.
 FIESTE, VERNOLD K., Associate Professor, Ph.D., University of Missouri at Columbia, 1966.
 GRISMORE, F. LEE, JR., Associate Professor, Ph.D., Georgia Institute of Technology, 1970.
 LIT, ALFRED, Professor, Ph.D., Columbia University, 1948.
 McCALLA, THOMAS, JR., Associate Professor, Ph.D., Case Western Reserve University, 1969.
 RAWLINGS, CHARLES A., Assistant Professor, Ph.D., Southern Illinois University, 1974.
 SMITH, JAMES G., Professor and *Chairman*, Ph.D., University of Missouri at Rolla, 1967.

Engineering Mechanics and Materials (School of Engineering and Technology)

- BROWER, WILLIAM E., JR., Assistant Professor, Ph.D., Massachusetts Institute of Technology, 1969.
 CHUGH, YOGINDER P., Associate Professor, Ph.D., Pennsylvania State University, 1971.
 DAVIS, PHILIP, Professor and *Chairman*, Ph.D., University of Michigan, 1963.
 EDDINGFIELD, DAVID, Assistant Professor, Ph.D., University of New Mexico, 1975.
 EVERS, JAMES, Associate Professor, Ph.D., University of Alabama, 1969.
 HALL, MONTE R., Assistant Professor, Ph.D., Virginia Polytechnic Institute and State University, 1974.
 NOWACKI, C. RAYMOND, Associate Professor, Ph.D., University of Illinois, 1965.
 ORTHWEIN, WILLIAM, Professor, Ph.D., University of Michigan, 1959.
 RAZZAQ, ZIA, Assistant Professor, D.Sc., Washington University, 1974.
 RUBAYI, NAJIM, Professor, Ph.D., University of Wisconsin, 1966.
 SAMI, SEDAT, Professor, Ph.D., University of Iowa, 1966.

English (College of Liberal Arts)

- APPLEBY, BRUCE C., Associate Professor, Ph.D., University of Iowa, 1967.

- BARBER, JULIA MINETTE, Assistant Professor, *Emerita*, A.M., University of Illinois, 1915.
- BARBOUR, FRANCES, Associate Professor, *Emerita*, M.A., Washington University, 1920.
- BENZIGER, JAMES G., Professor, Ph.D., Princeton University, 1941.
- BLACK, ROSE, Instructor, *Emerita*, M.A., Ohio State University, 1926.
- BOYLE, TED EUGENE, Professor, Ph.D., University of Nebraska, 1962.
- BROWN, WILLIAM J., Associate Professor, Ph.D., Duke University, 1966.
- BURNS, WINIFRED, Assistant Professor, *Emerita*, M.A., University of Illinois, 1933.
- CAMP, GEORGE, Assistant Professor, *Emeritus*, Ph.D., University of Illinois, 1951.
- CASSIDY, THOMAS E., Associate Professor, *Emeritus*, A.M., University of Notre Dame, 1938.
- CLARK, MARTHA, Instructor, *Emerita*, A.M. Southern Illinois University, 1953.
- COHN, ALAN MARTIN, Professor, M.S., University of Illinois, 1955.
- COLEMAN, E. C., Professor, *Emeritus*, Ph.D., University of Illinois, 1936.
- DODD, DIANA L., Assistant Professor, *Emerita*, M.A., Southern Illinois University, 1954.
- DONOW, HERBERT, Associate Professor, Ph.D., University of Iowa, 1966.
- FRIEND, JEWELL, Associate Professor, Ph.D., Southern Illinois University, 1970.
- GOODIN, GEORGE, Associate Professor, Ph.D., University of Illinois, 1962.
- GRIFFIN, ROBERT P., Associate Professor, Ph.D., University of Connecticut, 1965.
- HARPER, CLIFFORD D., Associate Professor, Ph.D., St. Louis University, 1972.
- HATTON, THOMAS J., Associate Professor, Ph.D., University of Nebraska, 1966.
- HILLEGAS, MARK, Professor, Ph.D., Columbia University, 1957.
- HOWELL, JOHN M., Associate Professor, Ph.D., Tulane University, 1963.
- HURLEY, PAUL, Professor, Ph.D., Duke University, 1962.
- KRAPPE, EDITH, Associate Professor, *Emerita*, Ph.D., University of Pennsylvania, 1953.
- KVERNES, DAVID M., Assistant Professor, Ph.D., University of Minnesota, 1967.
- LAMB, MARY, Lecturer, Ph.D., Columbia University, 1976.
- LAWSON, RICHARD A., Associate Professor, Ph.D., Tulane University, 1966.
- LINGLE, FRED, Assistant Professor, *Emeritus*, A.M., University of Illinois, 1935.
- LITTLE, JUDY RUTH, Associate Professor, Ph.D., University of Nebraska, 1969.
- MARTIN, JOAN FOLEY, Instructor, M.A., Southern Illinois University, 1959.
- MITCHELL, BETTY LOU, Assistant Professor M.A., Southern Illinois University, 1951.
- MOORE, HARRY T., Professor and Research Professor, *Emeritus*, Ph.D., Boston University, 1951.
- MOSS, SIDNEY P., Professor, Ph.D., University of Illinois, 1954.
- PARTLOW, ROBERT B., JR., Professor, and *Chairman*, Ph.D., Harvard University 1955.
- PETERSON, RICHARD F., Associate Professor, Ph.D., Kent State University, 1969.
- PIPER, HENRY DAN, Professor, Ph.D., University of Pennsylvania, 1950.
- RAINBOW, RAYMOND, Associate Professor, Ph.D., University of Chicago, 1950.
- RAIZIS, M. BYRON, Professor, Ph.D., New York University, 1966.
- RICHMAN, LOIS ANNE, Instructor, A.M., University of Illinois, 1962.
- RUDNICK, HANS, Associate Professor, Ph.D., University of Freiburg, Germany, 1966.
- SCHONHORN, MANUEL, Professor, Ph.D., University of Pennsylvania, 1963.
- SCHULTZ, JOHN HOWARD, Professor, *Emeritus*, Ph.D., Harvard University, 1940.
- SIMEONE, WILLIAM E., Professor, Ph.D., University of Pennsylvania, 1950.
- SIMON, MARY C., Instructor, *Emerita*, A.M., University of Illinois, 1940.
- STIBITZ, E. EARLE, Professor, *Emeritus*, Ph.D., University of Michigan, 1951.
- TAYLOR, LARRY E., Associate Professor, Ph.D., University of Oklahoma, 1969.
- TENNEY, CHARLES D., University Professor, *Emeritus*, Ph.D., University of Oregon, 1931.
- TRAVIS, EDNA, Instructor, *Emerita*, M.S. in Ed., Southern Illinois University, 1948.
- VIETH, DAVID MUENCH, Professor, Ph.D., Yale University, 1953.
- WEBB, HOWARD W., JR., Professor, Ph.D., University of Iowa, 1953.
- WESHINSKEY, ROY K., Assistant Professor, M.S., Southern Illinois University, 1950.

Finance (College of Business and Administration)

- ELSAID, HUSSEIN H., Associate Professor, Ph.D., University of Illinois, 1968.
- MATHUR, IQBAL, Associate Professor, Ph.D., University of Cincinnati, 1974.
- PERTL, MARS A., Assistant Professor, Ph.D., University of Iowa, 1974.
- SPRECHER, C. RONALD, Associate Professor, Ph.D., University of Illinois, 1969.
- TYLER, R. STANLEY, Associate Professor, J.D., University of Illinois, 1952.
- VAUGHN, DONALD E., Professor and *Chairman*, Ph.D., University of Texas, 1961.
- WATERS, GOLA E., Associate Professor, J.D., University of Iowa, 1957, Ph.D., Southern Illinois University, 1970.

Foreign Languages and Literatures (College of Liberal Arts)

- AYDT, JUDITH, Instructor, M.A., Southern Illinois University, 1966.
- BECKMAN, BARBARA, Assistant Professor, D.A., University of Washington, 1975.
- BORK, ALBERT W., Professor, *Emeritus*, Doctor en Letras, National University of Mexico, 1944.

- CANFIELD, D. LINCOLN, Visiting Professor, *Emeritus*, Ph.D., Columbia University, 1934.
 DAVIS, J. CARY, Professor, *Emeritus*, Ph.D., University of Chicago, 1936.
 FRENCH, HOWARD, Associate Professor, *Emeritus*, Ph.D., Indiana University, 1952.
 GOBERT, DAVID L., Professor, Ph.D., University of Iowa, 1960.
 HARTMAN, STEVEN LEE, Assistant Professor, Ph.D., University of Wisconsin, 1971.
 HARTWIG, HELLMUT A., Professor, *Emeritus* Ph.D., University of Illinois, 1943.
 KELLER, THOMAS, Assistant Professor, Ph.D., University of Colorado, 1975.
 KILKER, JAMES, Associate Professor, Ph.D., University of Missouri at Columbia, 1961.
 KUPCEK, JOSEPH, Professor, Ph.D., Comenius University, Bratislava, Czechoslovakia, 1943.
 LIEDLOFF, HELMUT, Professor, Ph.D., Phillips University, Germany, 1956.
 MCBRIDE, CHARLES, Associate Professor, Ph.D., University of Texas, 1968.
 MEINHARDT, WARREN, Associate Professor, Ph.D., University of California at Berkeley, 1965.
 NEUFELD, ANNA K., Assistant Professor, *Emerita*, M.A., University of Kansas, 1937.
 O'BRIEN, JOAN, Associate Professor, Ph.D., Fordham University, 1961.
 O'MEARA, MAURICE, Associate Professor, Ph.D., University of Iowa, 1967.
 ORECHWA, OLGA, Assistant Professor, Ph.D., Ukrainian Free University, Germany, 1970.
 PEACOCK, VERA L., Professor, *Emerita*, Ph.D., Cornell University, 1930.
 SMITH, MADELEINE M., Associate Professor, *Emerita*, Ph.D., Yale University, 1952.
 SPECK, CHARLES, Assistant Professor, Laurea in Diritto Canonico, Pontifical Lateran University, Italy, 1963.
 TAI, JAMES, Associate Professor, Ph.D., Indiana University, 1970.
 TIMPE, EUGENE F., Professor and *Chairman*, Ph.D., University of Southern California, 1960.
 ULNER, ARNOLD, Assistant Professor, Ph.D., University of Missouri at Columbia, 1972.
 VOGELY, MAXINE, Assistant Professor, *Emerita*, Ph.D., University of Illinois, 1969.
 WILKINSON, MILDRED, Instructor, M.A., Southern Illinois University, 1965.
 WILLIAMS, FREDERICK L., Assistant Professor, Ph.D., Cornell University, 1976.
 WOODBRIDGE, HENSLEY, Professor, Ph.D., University of Illinois, 1950.

Forestry (School of Agriculture)

- AUBERTIN, GERALD M., Associate Professor, Ph.D., Pennsylvania State University, 1964.
 BUDELSKY, CARL A., Assistant Professor, Ph.D., University of Arizona 1969.
 BURDE, JOHN H., III, Assistant Professor, Ph.D., University of Arizona, 1975.
 CHILMAN, KENNETH C., Associate Professor, Ph.D., University of Michigan, 1972.
 FRALISH, JAMES S., Associate Professor, Ph.D., University of Wisconsin, 1970.
 GAFFNEY, GERALD R., Assistant Professor, Ph.D., Southern Illinois University, 1970.
 KUNG, FAN H., Associate Professor, Ph.D., Michigan State University, 1968.
 McCURDY, DWIGHT R., Professor, Ph.D., Ohio State University, 1964.
 MYERS, CHARLES C., Associate Professor, Ph.D., Purdue University, 1966.
 ROTH PAUL L., Associate Professor, Ph.D., Kansas State University, 1968.
 SPALT, HOWARD A., Associate Professor and *Chairman*, D. For., Yale University, 1959.
 WEAVER, GEORGE T., Associate Professor, Ph.D., University of Tennessee, 1972.
 YAMBERT, PAUL A., Professor, Ph.D., University of Michigan, 1961.

Geography (College of Liberal Arts)

- AREY, DAVID G., Associate Professor, Ph.D., Clark University, 1969.
 BAUMANN, DUANE D., Associate Professor, Ph.D., Clark University, 1968.
 BEAZLEY, RONALD I., Professor, Ph.D., Purdue University, 1954.
 CHRISTENSEN, DAVID E., Professor, Ph.D., University of Chicago, 1956.
 CUNNINGHAM, FLOYD, Professor, *Emeritus*, Ph.D., Clark University, 1930.
 DWORKIN, DANIEL M., Assistant Professor, Ph.D., Clark University, 1974.
 HORSLEY, A. DOYNE, Assistant Professor, Ph.D., Southern Illinois University, 1974.
 HORTON, FRANK E., Professor, Ph.D., Northwestern University, 1966.
 IRWIN, DANIEL R., Associate Professor, Ph.D., Syracuse University, 1972.
 JONES, DAVID L., Professor, Ph.D., Pennsylvania State University, 1960.
 KRAUSE, ANNEMARIE, Associate Professor, *Emerita*, Ph.D., University of Chicago, 1952.
 LIEBER, STANLEY R., Assistant Professor, Ph.D., University of Iowa, 1974.
 SHARPE, DAVID M., Associate Professor and *Chairman*, Ph.D., Southern Illinois University, 1968.

Geology (College of Science)

- BELL, FRANK JAMES, Assistant Professor, *Emeritus*, M.S., University of Nebraska, 1941.
 COLE, REX D., Assistant Professor, Ph.D., University of Utah, 1975.
 CRELLING, JOHN C., Assistant Professor, Ph.D., The Pennsylvania State University, 1973.
 DUTCHER, RUSSELL R., Professor and *Chairman*, Ph.D., The Pennsylvania State University, 1960.

FANG, JEN-HO, Professor, Ph.D., Pennsylvania State University, 1961.
 FRANK, CHARLES OTIS, Assistant Professor, Ph.D., Syracuse University, 1973.
 FRAUNFELTER, GEORGE H., Professor, Ph.D., University of Missouri, Columbia, 1964.
 HARRIS, STANLEY, E., JR., Professor, Ph.D., University of Iowa, 1947.
 HOOD, WILLIAM C., Professor, Ph.D., University of Montana, 1964.
 MANSFIELD, CHARLES F., Assistant Professor, Ph.D., Stanford University, 1972.
 RITTER, DALE F., Professor, Ph.D., Princeton University, 1964.
 ROBINSON, PAUL D., Assistant Professor, M.S., Southern Illinois University, 1963.
 SEXTON, JOHN L., Assistant Professor, Ph.D., Indiana University, 1974.
 UTGAARD, JOHN E., Professor, Ph.D., Indiana University, 1963.
 ZIMMERMAN, JAY, JR., Associate Professor, Ph.D., Princeton University, 1968.

Graphic Communications (School of Technical Careers)

BECKENBACH, JOSEPH R., Assistant Professor, Architectural Technology, M.Arch., University of Nebraska, 1973.
 BONZELET, JOSEPH T., Assistant Professor, Correctional Services and Law Enforcement, M.A., University of Southern California, 1972.
 CALDWELL, PAUL N., Associate Professor, Electronics Technology, M.S.Ed., Southern Illinois University, 1965.
 CROSS, B. D., Adjunct Assistant Professor, Electronic Data Processing, M.S., Southern Illinois University, 1965.
 DAKIN, JOSEPH, Assistant Professor, Correctional Services and Law Enforcement, M.S.Ed., Southern Illinois University, 1977.
 DAVIE, JOSEPH L., Adjunct Assistant Professor, Electronic Data Processing, B.A., Southern Illinois University, 1954.
 DAVIS, DIANE R., Instructor, Secretarial and Office Specialties, B.S., Southern Illinois University, 1976.
 FAHLSING, THEODORE E., Instructor, Electronics Technology, B.S., Purdue University, 1971.
 FISHER, VALERIE, Instructor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1975.
 GIMENEZ, ATILIO M., Assistant Professor, Architectural Technology, M.Arch., University of Buenos Aires, 1964.
 GRACE, W. CHARLES, Lecturer, Correctional Services and Law Enforcement, J.D., University of Tennessee College of Law, 1972.
 GREATHOUSE, LILLIAN, Assistant Professor, Secretarial and Office Specialties, M.A., Southern Illinois University, 1970.
 HARRE, PAUL A., Assistant Professor, Electronics Technology, M.S.Ed., Southern Illinois University, 1974.
 HENDRICKS, JAMES E., Assistant Professor, Correctional Services and Law Enforcement, M.A., Southern Illinois University, 1973.
 HENGHELD, LARRY, Adjunct Assistant Professor, Electronic Data Processing, M.S., Southern Illinois University, 1968.
 HILL, MARVIN P., Professor, *Emeritus*, M.S., University of Colorado, 1939.
 HUCK, JOHN H., Adjunct Assistant Professor, Electronic Data Processing, M.A., Southern Illinois University, 1970.
 JOHNSON, BYRON V., Assistant Professor, Electronic Data Processing, S.T.M., McCormick Theological Seminary, 1969.
 JOHNSON, JOHN R., Instructor, Electronics Technology, M.A., Southern Illinois University, 1977.
 JOHNSTON, CHESTER E., Associate Professor and *Chairman*, Secretarial and Office Specialties, M.A., George Peabody College for Teachers, 1953.
 KREUTZER, ANDREW N., Assistant Professor, Electronic Data Processing, M.A., City College of City University of New York, 1971.
 KUSEK, ROBERT, Associate Professor, Secretarial and Office Specialties, Ed.D., Boston University, 1974.
 LACH, NORMAN, Instructor, Architectural Technology, M.Arch., University of Illinois, 1974.
 LADNER, JOEL BROOKS, Assistant Professor, Architectural Technology, B.Arch., University of Houston, 1966.
 LITTLE, HAROLD E., Associate Professor, Architectural Technology, B.S., Pennsylvania State University, 1951.
 MARTIN, CAROL A., Assistant Professor, Correctional Services and Law Enforcement, M.A., Andrews University, 1974.
 MIRIANI, THERESA B., Associate Professor, Secretarial and Office Specialties, M.S., University of Denver, 1946.
 MORGAN, BARBARA, Instructor, Secretarial and Office Specialties, M.S.Ed., Southern Illinois University, 1972.

- MORSE, H. PAULETTA, Instructor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1975.
- MUTHUKRISHNAN, SHANKAR, Visiting Assistant Professor, M.S. (E.E.), University of Bombay, 1972.
- POGGAS, CHRISTY J., Instructor, Architectural Technology, B.A. Arch., University of Arizona, 1975.
- RICHEY, HELEN E., Assistant Professor, Secretarial and Office Specialties, M.S.Ed., Southern Illinois University, 1953.
- RUTLEDGE, CLIFTON D., Associate Professor, Architectural Technology, M.Arch., Kansas State University, 1968.
- SCHOEN, JANICE S., Instructor, Secretarial and Office Specialties, M.Ed., University of Illinois, 1970.
- SHEETS, LESLIE P., Instructor, Electronics Technology, M.S.Ed., Southern Illinois University, 1976.
- SHIN, WANGSHIK, Assistant Professor, Secretarial and Office Specialties, M.A., Southern Illinois University, 1963.
- SHUPE, WILLIAM G., Instructor, Electronics Technology, B.S., University of Illinois, 1975.
- TROTTER, GENE E., Associate Professor, Architectural Technology, B.S., North Dakota State University, 1939.
- VAUGHN, F. Eugene, Associate Professor, Secretarial and Office Specialties, M.S.Ed., Southern Illinois University, 1961.
- WHITE, MINDY P., Instructor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1976.

Guidance and Educational Psychology (College of Education)

- ALTEKRUSE, MICHAEL D., Professor, Ed.D., Indiana University, 1967.
- AMBLE, BRUCE ROY, Professor, Ph.D., University of Iowa, 1963.
- BARDO, HAROLD R., Associate Professor, Ph.D., Southern Illinois University, 1972.
- BEGGS, DONALD L., Professor, Ph.D., University of Iowa, 1966.
- BRADLEY, RICHARD W., Professor, Ph.D., University of Wisconsin, 1968.
- CODY, JOHN J., Professor, Ph.D., University of Wisconsin, 1961.
- DEICHMANN, JOHN W., Associate Professor, Ph.D., St. Louis University, 1969.
- DeWEESE, HAROLD L., Professor, Ed.D., University of Illinois, 1959.
- ELMORE, PATRICIA B., Associate Professor, Ph.D., Southern Illinois University, 1970.
- ENDSLEY, WILLIAM R., Assistant Professor, Ph.D., Brigham Young University, 1976.
- EVANS, JOHN REAVES, Associate Professor, Ph.D., Southern Illinois University, 1968.
- GRAHAM, JACK W., Professor, Ph.D., Purdue University, 1951.
- GRENFELL, JOHN E., Professor, Ed.D., Oregon State University, 1966.
- IDEUS, HARVEY S., Associate Professor, Ed.D., University of Wyoming, 1965.
- KELLY, FRANCIS J., Professor, Ph.D., University of Texas, 1963.
- LEITNER, DENNIS, Assistant Professor, Ph.D., University of Maryland, 1975.
- LEWIS, ERNEST, Associate Professor and *Chairman*, Ph.D., Southern Illinois University, 1971.
- LINDSEY, JEFFERSON F., Professor, Ed.D., University of Texas, 1962.
- MEEK, CLINTON ROSCOE, Professor, Ph.D., George Peabody College for Teachers, 1954.
- MILLER, WILLIAM G., Associate Professor, Ph.D., University of Iowa, 1967.
- MOUW, JOHN T., Associate Professor, Ed.D., University of South Dakota, 1968.
- PHELPS, WILLIAM, Professor, *Emeritus*, Ed.D., University of Northern Colorado, 1943.
- POHLMANN, JOHN T., Professor, Ph.D., Southern Illinois University, 1972.
- RENZABLIA, GUY A., Professor, Ph.D., University of Minnesota, 1952.
- SNOWMAN, JACK, Assistant Professor, Ph.D., Indiana University, 1975.
- WHITE, GORDON, Assistant Professor, Ph.D., University of Iowa, 1969.
- WICKERSHAM, BEVERLY, Assistant Professor, Ph.D., University of Iowa, 1974.
- WOEHLKE, PAULA L., Assistant Professor, Ph.D., Arizona State University, 1973.
- YATES, J. W., Professor, Ed.D., University of Missouri, Columbia, 1951.

Health Education (College of Education)

- AARON, JAMES E., Professor, Ed.D., New York University, 1960.
- AMADIO, JOHN B., Assistant Professor, Ph.D., University of Oklahoma, 1970.
- BATES, IRA J., Visiting Assistant Professor, Ph.D., The Ohio State University, 1970.
- BOYDSTON, DONALD N., Professor and *Chairman*, Ed.D., Columbia University, 1949.
- BRIDGES, A. FRANK, Professor, *Emeritus*, D.H.S., Indiana University, 1952.
- CASEY, RALPH, Associate Professor, Ed.D., Columbia University, 1956.
- COUNSELL, LEE A., Visiting Associate Professor, D.D.S., Northwestern University, 1948.
- DENNY, FLORENCE E., Associate Professor, *Emerita*, M.A., Columbia University, 1935.
- DEPUE, LEANNA, Visiting Instructor, M.S., Southern Illinois University at Carbondale, 1973.
- GRISSOM, DEWARD K., Professor, *Emeritus*, Ed.D., Columbia University, 1952.

HAILEY, ROBERT, Instructor, M.Ed., University of Missouri, Columbia, 1959.
 HARRIS, EILEEN M., Assistant Professor, Ph.D., Southern Illinois University, 1970.
 HENDERSON, ALAN C., Assistant Professor, Dr.P.H., University of California (Los Angeles), 1976.
 IUBELT, GEORGE, Instructor, M.S., Indiana University, 1954.
 JONES, RICHARD, Instructor, M.S.Ed., Southern Illinois University, 1966.
 LEFEVRE, JOHN R., Professor, Ed.D., Teachers College, Columbia University, 1950.
 LINDAUER, LARRY, Assistant Professor, Ph.D., Southern Illinois University, 1972.
 MILLER, ALICE, Visiting Instructor, M.A., Ball State University, 1975.
 MOGLIA, RONALD J., Assistant Professor, Ed.D., Temple University, 1975.
 PHILLIPS, FRANCES K., Associate Professor, *Emerita*, M.A., Columbia University, 1940.
 RICHARDSON, CHARLES E., Professor, Ed.D., University of California, Los Angeles, 1959.
 RITZEL, DALE, Associate Professor, Ph.D., Southern Illinois University, 1970.
 RUSSELL, ROBERT D., Professor, Ed.D., Stanford University, 1954.
 SCHUETZ, CYNTHIA, Visiting Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1977.
 SLIEPCEVICH, ELENA M., Professor, D.P.E., Springfield College, 1955.
 STEELE, ROBERT, Instructor, M.S.Ed., Southern Illinois University, 1963.
 VAUGHN, ANDREW T., Professor, D.Ed., Columbia University, 1958.
 VITELLO, ELAINE, Visiting Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1977.
 VOGEL, HERBERT, Instructor, M.S., Indiana University, 1954.

Higher Education (College of Education)

ADAMS, FRANK C., Professor, *Emeritus*, Ph.D., Southern Illinois University, 1962.
 CALDWELL, OLIVER J., Professor, *Emeritus*, M.S. Oberlin College, 1927.
 CASEBEER, ARTHUR L., Associate Professor, Ed.D., Oregon State University, 1963.
 DAVIS, I. CLARK, Professor, *Emeritus*, Ed.D., Indiana University, 1956.
 DINGERSON, MICHAEL R., Assistant Professor, Ph.D., Southern Illinois University, 1974.
 GRAHAM, JACK W., Professor, Ph.D., Purdue University, 1951.
 GRINNELL, JOHN E., Professor, *Emeritus*, Ph.D., Stanford University, 1934.
 HAWLEY, JOHN B., Professor, Ph.D., University of Michigan, 1957.
 JUNG, LOREN B., Professor, Ph.D., Southern Illinois University, 1969.
 KEENE, ROLAND, Professor, Ed.D., Washington University, 1962.
 KING, JOHN E., Professor and *Departmental Executive Officer*, Ph.D., Cornell University, 1941.
 MORRILL, PAUL H., Professor, Ph.D., Northwestern University, 1956.
 NOVICK, JEHIEL, Assistant Professor, Ph.D., Southern Illinois University, 1970.
 PRATT, ARDEN L., Professor, Ph.D., State University of New York at Buffalo, 1968.
 SPEES, EMIL R., Assistant Professor, Ph.D., Claremont Graduate School, 1969.
 SWINBURNE, BRUCE R., Associate Professor, Ed.D., Indiana University, 1970.
 TOLLE, DONALD J., Professor, Ed.D., Florida State University, 1957.
 ZIMMERMAN, ELWYN, Assistant Professor, Ph.D., Michigan State University, 1963.

History (College of Liberal Arts)

ADAMS, GEORGE W., Professor, *Emeritus*, Ph.D., Harvard University, 1946.
 ALLEN, HOWARD W., Professor, Ph.D., University of Washington, 1959.
 AMMON, HARRY, Professor and *Chairman*, Ph.D., University of Virginia, 1948.
 BARTON, H. ARNOLD, Professor, Ph.D., Princeton University, 1962.
 BATINSKI, MICHAEL C., Assistant Professor, Ph.D., Northwestern University, 1969.
 BREHM, DONALD L., Assistant Professor, Ph.D., St. Louis University, 1968.
 CARROTT, M. BROWNING, Associate Professor, Ph.D., Northwestern University, 1966.
 CHERRY, GEORGE L., Professor, *Emeritus*, Ph.D., Northwestern University, 1938.
 CLIFFORD, JOHN R., Associate Professor, Ph.D., University of Iowa, 1954.
 CONRAD, DAVID E., Associate Professor, Ph.D., University of Oklahoma, 1962.
 DETWILER, DONALD S., Associate Professor, Dr. Phil., Göttingen University, Germany, 1961.
 DOTSON, JOHN E., Assistant Professor, Ph.D., Johns Hopkins University, 1969.
 FLADELAND, BETTY L., Professor, Ph.D., University of Michigan, 1952.
 GARDINER, C. HARVEY, Professor, *Emeritus*, Ph.D., University of Michigan, 1945.
 GOLD, ROBERT L., Professor, Ph.D., University of Iowa, 1964.
 KUO, PING-CHIA, Professor, *Emeritus*, Ph.D., Harvard University, 1933.
 McFARLIN, HAROLD A., Assistant Professor, Ph.D., Indiana University, 1971.
 MURPHY, JAMES B., Associate Professor, Ph.D., Louisiana State University, 1968.
 O'DAY, EDWARD J., Instructor, A.M., Indiana University, 1956.
 PITKIN, WILLIAM A., Associate Professor, *Emeritus*, Ph.D., University of Texas, 1940.
 SHELBY, LON R., Professor, Ph.D., University of North Carolina, 1962.
 SIMON, JOHN Y., Professor, Ph.D., Harvard University, 1961.

VYVERBERG, HENRY S., Associate Professor, Ph.D., Harvard University, 1950.
 WERLICH, DAVID P., Assistant Professor, Ph.D., University of Minnesota, 1968.
 WRIGHT, JOHN I., Associate Professor, *Emeritus*, A.M., University of Chicago, 1933.
 WU, TIEN-WEI, Associate Professor, Ph.D., University of Maryland, 1965.
 ZUCKER, STANLEY, Associate Professor, Ph.D., University of Wisconsin, 1968.

Human Development (College of Human Resources)

BARNES, MARY LOUISE, Assistant Professor, *Emerita*, M.S. Iowa State College, 1931.
 BECKER, HENRIETTA, Lecturer, M.S., Southern Illinois University, 1964.
 BROOKS, THOMAS M., Professor, Ph.D., Pennsylvania State University, 1961.
 CRAIG, KAREN E., Associate Professor, Ph.D., Purdue University, 1969.
 DRAYTON, PATRICIA K., Instructor, M.S., Southern Illinois University, 1974.
 EDDLEMAN, E. JACQUELINE, Assistant Professor, Ph.D., Southern Illinois University, 1970.
 EDMONDSON, MARY ELLEN, Instructor, M.S., Indiana State University, 1971.
 ENDRES, JEANNETTE M., Assistant Professor, Ph.D., St. Louis University, 1972.
 GULLEY, S. BEVERLY, Assistant Professor, Ph.D., Southern Illinois University, 1974.
 HARPER, JENNIE M., Professor, *Emerita*, Ph.D., Cornell University, 1941.
 JONES, JENNIE Y., Assistant Professor, A.M., University of Illinois, 1949.
 KONISHI, FRANK, Professor, Ph.D., Cornell University, 1958.
 KRAFT, T. KATHLEEN, Assistant Professor, M.S., Southern Illinois University, 1968.
 LACEY, JEROME, Assistant Professor, Ph.D., Southern Illinois University, 1975.
 NOE, MELVIN, L., Instructor, M.S., University of Illinois, 1968.
 OSBORN, DORIS, Instructor, M.S., Southern Illinois University, 1966.
 OUEDRAOGO, BARBARA H., Assistant Professor, Ph.D., Southern Illinois University, 1972.
 PAYNE, IRENE R., Professor, Ph.D., Cornell University, 1960.
 PONTON, MELVA F., Assistant Professor, M.S., University of Illinois, 1956.
 QUIGLEY, EILEEN, Professor, *Emerita*, Ed.D., University of Missouri, 1947.
 ROGERS, SHIRLEY M., Assistant Professor, M.S.Ed., Southern Illinois University, 1961.
 SPEES, EDITH C., Assistant Professor, Ph.D., Claremont Graduate School, 1968.
 ZUNICH, MICHAEL, Professor and *Director*, Ph.D., Florida State University, 1959.

Journalism (College of Communications and Fine Arts)

ATWOOD, L. ERWIN, Professor, Ph.D., University of Iowa, 1965.
 BROWN, GEORGE C., Professor, Ph.D., Southern Illinois University, 1963.
 CLAYTON, CHARLES C., Professor, *Emeritus*, B.J., University of Missouri, 1925.
 COMBS, ADRIAN, Lecturer, M.A., Southern Illinois University, 1975.
 FORD, JAMES L. C., Professor, *Emeritus*, Ph.D., University of Minnesota, 1948.
 FRAZER, MARY K., Assistant Professor, *Emerita*, M.S., Southern Illinois University, 1965.
 GRUNY, C. RICHARD, Assistant Professor, J.D., University of Illinois, 1959.
 HARMON, WILLIAM M., Instructor, M.S., Oklahoma State University, 1965.
 HART, JIM ALLEE, Professor, *Emeritus*, Ph.D., University of Missouri, 1959.
 JEFFERS, DENNIS, Assistant Professor, Ph.D., Ohio University, 1976.
 JOHNSON, RALPH H., Assistant Professor, Ph.D., University of Wisconsin, 1975.
 LONG, HOWARD R., Professor, *Emeritus*, Ph.D., University of Missouri, 1948.
 LYONS, WILLIAM H., Assistant Professor, *Emeritus*, M.A., University of Colorado, 1935.
 MCCOY RALPH E., Professor, *Emeritus*, Ph.D., University of Illinois, 1956.
 MENDENHALL, HARLAN H., Lecturer, B.A., University of Oklahoma, 1937.
 MORGAN, HUGH J., Instructor, M.A., University of Oklahoma, 1967.
 OSTMAN, RONALD, Assistant Professor, Ph.D., University of Minnesota, 1974.
 RICE, W. MANION, Associate Professor, Ph.D., Southern Illinois University, 1967.
 SMITH, EVAN, Instructor, M.S., University of Oregon, 1971.
 STONECIPHER, HARRY W., Associate Professor, Ph.D., Southern Illinois University, 1971.
 TRAGER, ROBERT E., Associate Professor, Ph.D., University of Minnesota, 1972.
 WEBB, JOSEPH, Assistant Professor, Ph.D., University of Illinois, 1973.
 WILLIAMS, THOMAS, Assistant Professor, M.A., University of Notre Dame, 1969.

Library

AKANBI, DAVID K., Instructor, M.E., University of Pittsburgh, 1971.
 BAUNER, RUTH E., Associate Professor, S.Ed., Southern Illinois University, 1974.
 BAYSINGER, PATRICIA, Researcher, B.A., Southern Illinois University, 1970.
 BEDIENT, DOUGLAS, Assistant Professor, Ph.D., Southern Illinois University, 1971.
 BLACK, GEORGE W., JR., Associate Professor, M.S.L.S., Columbia University, 1966.
 BORK, ELIZABETH V., Instructor, B.A., University of Southern California, 1955.
 BOYDSTON, JO ANN, Professor, Ph.D., Columbia University, 1950.

BROWN, F. DALE, Instructor, M.S., Eastern Illinois University, 1965.
 CHERVINKO, JAMES S., Assistant Professor, M.S.L.S., University of Illinois, 1973.
 CLARK, CHARLOTTE R., Instructor, A.B.L.S., University of Michigan, 1940.
 CLIFFORD, JOHN, Associate Professor, Ph.D., University of Iowa, 1954.
 COHN, ALAN M., Professor, M.S., University of Illinois, 1955.
 COX, SHELLEY M., Instructor, M.A.L.S., University of Chicago, 1973.
 CRANE, LILLY E., Instructor, M.A.L.S., University of Michigan, 1967.
 DANIELS, MINA HAYES, Assistant Professor, M.S.L.S., University of North Carolina, 1965.
 DENZEL, HARRY, Assistant Professor, Ph.D., Southern Illinois University, 1971.
 DUCKETT, KENNETH W., Associate Professor, M.S., University of Wisconsin, 1951.
 EADS, D. KATHLEEN, Assistant Professor, M.S., University of Illinois, 1949.
 FAGERSTROM, DAVID M., Instructor, M.L.S., University of Maryland, 1974.
 FOX, JAMES W., Assistant Professor, M.A., University of North Carolina, 1974.
 GOLDEN, SUSAN U., Instructor, M.S.L.S., University of Kentucky, 1974.
 HARWOOD, JUDITH ANN, Instructor, M.S., University of Illinois, 1965.
 HILDRETH, MARGARET H., Assistant Professor, M.L.S., State University of New York at Geneseo, 1970.
 HOFFMAN, JOHN M., Research Associate, Ph.D., Harvard University, 1972.
 HOLLIDAY, CHARLES L., Assistant Professor, M.S., University of Illinois, 1964.
 HOSTETLER, JERRY, Instructor, Ph.D., Southern Illinois University, 1977.
 HUTTON, BETTY JEAN, Instructor, M.S. in Ed., Southern Illinois University, 1968.
 ISBELL, MARY K., Instructor, M.S., Southern Illinois University, 1971.
 JACOBS, ROGER F., Professor, J.D., University of Detroit, 1970.
 JUHLIN, ALTON P., Assistant Professor, A.M.L.S., University of Michigan, 1946.
 KEEL, ROBERT L., Assistant Professor, M.A.L.S., George Peabody College for Teachers, 1961.
 KELLY, ELIZABETH S., Instructor, B.A., College of St. Catherine, 1958.
 KIEKHOFER, EMILY JANE, Assistant Professor, M.A., University of Wisconsin, 1976.
 KILPATRICK, THOMAS L., Instructor, M.S., University of Illinois, 1963.
 KOCH, DAVID V., Instructor, M.A., Southern Illinois University, 1963.
 LAMPMAN, WILMA L., Instructor, M.S., Southern Illinois University, 1962.
 LOCKWOOD, KATHARINE, Researcher, A.B., Oberlin College, 1964.
 MARQUEZ-STERLING, CARLOS, Assistant Professor, M.L.S., Kansas State Teachers College, 1968.
 MARQUEZ-STERLING, MARIANA, Assistant Professor, M.L.S., Kansas State Teachers College, 1968.
 MARRERO, BETTY RUTH, Instructor, M.A., George Peabody College for Teachers, 1957.
 MARRERO, CARLOS E., Instructor, M.A., University of Denver, 1961.
 MARTINSEK, CATHERINE W., Researcher, M.A., University of California at Los Angeles, 1950.
 MATTHEWS, ELIZABETH W., Assistant Professor, Ph.D., Southern Illinois University, 1972.
 MATTHEWS, SIDNEY, E., Associate Professor, M.S., University of Illinois 1952.
 OTTO, THEOPHIL M., Assistant Professor, M.L.S., Indiana University, 1972.
 PERSON, ROLAND C., Assistant Professor, M.A., University of Wisconsin, 1970.
 PETERSON, KENNETH G., Professor, Ph.D., University of California at Berkeley, 1968.
 PIXLEY, LORENE, Instructor, M.S., University of Illinois, 1960.
 POTEET, SUSAN S., Instructor, M.L.S., George Peabody College, 1970.
 POULOS, KATHLEEN E., Researcher, M.S. in Ed., Southern Illinois University, 1969.
 RAY, DAVID T., Assistant Professor, M.A., Southern Illinois University, 1967.
 RAY, JEAN MEYER, Assistant Professor, M.A., Southern Illinois University, 1976.
 ROTH, MARJORIE S., Instructor, M.S., Syracuse University, 1975.
 RUSSELL, THYRA K., Instructor, M.A., Northern Illinois University, 1972.
 SCOTT, W. WILEY, Instructor, M.S.L.S., Western Reserve University, 1959.
 SEIBERT, SUSAN, M., Researcher, M.S., Southern Illinois University, 1973.
 SIMON, JOHN Y., Professor, Ph.D., Harvard University, 1961.
 STARNES, MATILDA T., Instructor, M.S., University of Illinois, 1963.
 STUBBS, WALTER R., Instructor, M.A., Northern Illinois University, 1968.
 TAX, ANDREW T., Instructor, M.L.S., Charles University, Prague, 1962.
 THARP, CHARLES C., Instructor, M.S.L.S., University of Illinois, 1951.
 WINSOR, DONALD L., Associate Professor, Ed.D., University of Florida, 1961.
 WOOD, DON E., Assistant Professor, M.S., University of Illinois, 1965.
 WOODBRIDGE, ANNIE S., Researcher, M.A., George Peabody College for Teachers, 1936.
 YOUNG, JAMES B., Instructor, M.Lib., Emory University, 1976.

Linguistics (College of Liberal Arts)

CARRELL, PATRICIA L., Associate Professor and *Chairperson*, Ph.D., University of Texas at Austin, 1966.

GILBERT, GLENN G., Professor, Ph.D., Harvard University, 1963.
 KONNEKER, BEVERLY HILL, Assistant Professor, Ph.D., University of Texas at Austin, 1972.
 NGUYEN, DINH-HOA, Professor, Ph.D., New York University, 1956.
 PARISH, CHARLES, Professor, Ph.D., University of New Mexico, 1959.
 PERKINS, ALLAN KYLE, Assistant Professor, Ph.D., University of Michigan at Ann Arbor, 1976.
 REDDEN, JAMES E., Professor, Ph.D., Indiana University, 1965.
 SILVERSTEIN, RAYMOND O., Assistant Professor, Ph.D., University of California at Los Angeles, 1973.

Manpower Skill Center

BERRY, GERALD L., Assistant Instructor
 BOND, BURTON, JR., Assistant to Director
 DAVISON, HELEN, Assistant Instructor
 GOEPFERT, ROBERT W., Staff Assistant, A. B., William Jewell College, 1954.
 HAYES, JOYCE, Assistant Instructor, M.S. in Ed., Southern Illinois University.
 HAYS, THOMAS C., Director, M.S. in Ed., Southern Illinois University, 1960.
 JOHNSON, LEE L., Assistant Instructor, B.S., Southern Illinois University, 1969.
 MCDONALD, YVONNE T., Assistant Instructor, M.A., University of Wisconsin-Milwaukee, 1976.
 MORGAN, WILLIAM A., Assistant Instructor, B.S., Southern Illinois University, 1960.
 NEELY, BETTY A., Assistant Instructor, A.A., Southern Illinois University, 1977.
 ROBINSON, STEPHEN M., Assistant Instructor, B.S., Southern Illinois University, 1972.
 SCOTT, DONALD P., Assistant Instructor.
 SIMMONS, WILLIAM L., Assistant Instructor.
 SMALL, BETTY L., Assistant Instructor, M.Ed., University of Illinois, 1954.
 SMITH, NORMAN, Assistant Instructor, M.Ed., University of Illinois, 1954.
 SPRINGHORN, KENNETH, Assistant Instructor, B.S., Southern Illinois University, 1974.
 STUCKER, WANDA L., Assistant Instructor.

Marketing (College of Business and Administration)

ADAMS, KENDALL A., Professor, Ph.D., Michigan State University, 1962.
 ANDERSEN, R. CLIFTON, Professor, D.B.A., Indiana University, 1960.
 DARLING, JOHN R., JR., Professor, Ph.D., University of Illinois, 1967.
 DOMMERMUTH, WILLIAM P., Professor, Ph.D., Northwestern University, 1964.
 HINDERSMAN, CHARLES H. Professor, D.B.A., Indiana University, 1959.
 HORSLEY, JOE B., Instructor, M.A., University of Alabama, 1968.
 MOORE, JAMES R., Assistant Professor, Ph.D., University of Illinois, 1972.
 PERRY, DONALD L., Associate Professor, Ph.D., University of Illinois, 1966.
 ROSENBARGER, CHARLES E., Assistant Professor, M.B.A., Indiana University, 1954.
 WALTERS, C. GLENN, Professor and *Chairman*, Ph.D., University of Illinois, 1964.

Mathematics (College of Liberal Arts)

BAARTMANS, ALPHONSE H., Associate Professor and *Chairman*, Ph.D., Michigan State University, 1967.
 BECKEMEYER, IMOGENE C., Assistant Professor, M.A., Southern Illinois University, 1952.
 BIESTERFELDT, HERMAN, Associate Professor, Ph.D., Pennsylvania State University, 1963.
 BLACK, AMOS H., Professor, *Emeritus*, Ph.D., Cornell University, 1932.
 BOUWSMA, WARD, Associate Professor, Ph.D., University of Michigan, 1962.
 BURTON, THEODORE A., Professor, Ph.D., Washington State University, 1964.
 CARMONY, LOWELL, Assistant Professor, Ph.D., Southern Illinois University—Carbondale, 1976.
 CRENSHAW, JAMES A., Associate Professor, Ph.D., University of Illinois, 1967.
 DANHOF, KENNETH, Associate Professor, Ph.D., Purdue University, 1969.
 ELSTON, GEORGE, Instructor, M.S., University of Wisconsin, 1949.
 FOLAND, NEAL E., Professor, Ph.D., University of Missouri, 1961.
 GATES, LESLIE D., Associate Professor, Ph.D., Iowa State University, 1952.
 GREGORY, JOHN, Associate Professor, Ph.D., University of California at Los Angeles, 1969.
 GRIMMER, RONALD C., Professor, Ph.D., University of Iowa, 1967.
 HALL, DILLA, Associate Professor, *Emeritus*, Ph.D., St. Louis University, 1955.
 HOOKER, JOHN W., Assistant Professor, Ph.D., University of Oklahoma, 1967.
 HUNSAKER, WORTHEN N., Associate Professor, Ph.D., Washington State University, 1966.
 KAMMLER, DAVID, Associate Professor, Ph.D., University of Michigan, 1971.

KIRK, RONALD B., Associate Professor, Ph.D., California Institute of Technology, 1968.
 KOCH, CHARLES, Assistant Professor, Ph.D., University of Illinois, 1961.
 KUIPERS, LAUWERENS, Professor, *Emeritus*, Ph.D., Vrije Universiteit (Amsterdam), 1947.
 LANGENHOP, CARL E., Professor, Ph.D., Iowa State University, 1948.
 MARK, ABRAHAM M., Professor, Ph.D., Cornell University, 1947.
 MAXWELL, CHARLES, Professor, Ph.D., University of Illinois, 1955.
 McDANIEL, WILBUR C., Professor, *Emeritus*, Ph.D., University of Wisconsin, 1939.
 MILLMAN, RICHARD, Associate Professor, Ph.D., Cornell University, 1971.
 MOORE, ROBERT A., Associate Professor, Ph.D., Indiana University, 1962.
 NATHANSON, MELVYN B., Associate Professor, Ph.D., University of Rochester, 1971.
 OLMSTED, JOHN M. H., Professor, *Emeritus*, Ph.D., Princeton University, 1940.
 PAINE, THOMAS B., Assistant Professor, Ph.D., University of Oregon, 1966.
 PANCHAPAKESAN, S., Associate Professor, Ph.D., Purdue University, 1969.
 PARKER, GEORGE D., Assistant Professor, Ph.D., University of California, at San Diego, 1971.
 PATULA, WILLIAM T., Assistant Professor, Ph.D., Carnegie-Mellon University, 1972.
 PEDERSEN, FRANKLIN D., Associate Professor, Ph.D., Tulane University, 1967.
 PEDERSEN, KATHERINE, Assistant Professor, Ph.D., Tulane University, 1969.
 SELDIN, JONATHAN P., Assistant Professor, Ph.D., University of Amsterdam, 1968.
 SHOCK, ROBERT C., Associate Professor, Ph.D., University of North Carolina, 1969.
 SKALSKY, MICHAEL, Professor, D.Nat.Sc., University of Göttingen, 1949.
 SLECHTICKY, JAMES L., Instructor, *Emeritus*, M.S., Washington University, 1940.
 SNYDER, HERBERT H., Professor, Ph.D., Lehigh University, 1965, Ph.D., University of South Africa, 1972.
 STARKS, THOMAS H., Associate Professor, Ph.D., Virginia Polytechnic Institute, 1959.
 TOWNSEND, CARL, Associate Professor, Ph.D., Washington State University, 1965.
 WILSON, JOSEPH C., Professor, Ph.D., Louisiana State University, 1954.
 WIMP, LARRY L., Assistant Professor, M.A., University of Missouri, 1940, M.S., Southern Illinois University, 1959.
 WRIGHT, ALICE K., Assistant Professor, *Emerita*, M.A., University of Illinois, 1925.

Microbiology (College of Science)

BOND, ENRIQUETA, Assistant Professor, Ph.D., Georgetown University, 1969.
 BORGIA, PETER, Assistant Professor, Ph.D., University of Illinois, 1973.
 BOWSER, DEAN, Assistant Professor, Ph.D., University of Georgia at Athens, 1971.
 CASTER, JOHN, Assistant Professor, Ph.D., St. Louis University, 1968.
 COOPER, MORRIS D., Assistant Professor, Ph.D., University of Georgia at Athens, 1971.
 JACKSON, ROBERT, Professor, Ph.D., Purdue University, 1963.
 LINDEGREN, CARL C., Professor, *Emeritus*, Ph.D., California Institute of Technology, 1931.
 McCLARY, DAN O., Professor, Ph.D., Washington University, 1951.
 MYERS, WALTER L., Professor, D.V.M., Ph.D., University of Wisconsin, 1961.
 OGUR, MAURICE, Professor and *Chairman*, Ph.D., Columbia University, 1948.
 PARKER, JACK M., Assistant Professor, Ph.D., Purdue University, 1973.
 ROUHANDEH, HASSAN, Professor, Ph.D., Kansas State University, 1959.
 ROWAN, DIGHTON F., Professor, Ph.D., Stanford University, 1954.
 SCHECHMEISTER, ISAAC L., Professor, Ph.D., University of California at Berkeley, 1949.
 TEWARI, RAM, Professor, D.V.M., Agra University, India, 1960; PhR., Ohio State University, 1966.

Music (College of Communications and Fine Arts)

BARWICK, STEVEN, Professor, Ph.D., Harvard University, 1949.
 BATEMAN, MARIANNE WEBB, Professor, M.Mus., University of Michigan, 1959.
 BERGT, ROBERT, Associate Professor, S.T.M., Concordia Seminary, 1958.
 BLIVEN, FRANK, Instructor, M.A., Western Washington State College, 1976.
 BOE, JOHN, Professor, Northwestern University, 1969.
 BOOTZ, WILLIAM, Lecturer, M.M., Indiana University, 1975.
 BOTTJE, WILL GAY, Professor, A.Mus.D., Eastman School of Music, 1955.
 BRANCH, LONDON, Visiting Lecturer, M.M.Ed., Southern Illinois University, 1966.
 CALLAWAY, PAUL, Visiting Lecturer.
 COKER, WILSON W., Professor, D.M.A., University of Illinois, 1965.
 DENKER, FRED, Professor, *Emeritus*, Ph.D., Eastman School of Music, 1951.
 EDDINS, JOHN, Assistant Professor, Ph.D., Florida State University, 1966.
 FLIGEL, CHARLES, Assistant Professor, M.M., University of Kentucky, 1966.
 FLOYD, SAMUEL, Associate Professor, Ph.D., Southern Illinois University, 1969.
 GORDON RODERICK, Professor, Ph.D., University of Wisconsin, 1953.
 GRIZZELL, MARY JANE, Assistant Professor, M.Mus., Eastman School of Music, 1943.

HANES, MICHAEL, Assistant Professor, M.M.E., Southern Illinois University, 1965.
 HARTLINE, ELISABETH, Assistant Professor, *Emerita*, M.Mus., Northwestern University, 1936.
 HUNT, C. B., JR., Professor, University of California, Los Angeles, 1949.
 HUSSEY, GEORGE, Associate Professor, M.A.Ed., Washington University, 1963.
 KAGEFF, BURT, Associate Professor, A.M., University of Missouri, 1962.
 KINGSBURY, ROBERT, Associate Professor, M.Mus., Northwestern University, 1952.
 KLAUSMEIER, CONNIE, Instructor, M.M., University of Wisconsin, 1975.
 KOENIGSTEIN, NICHOLAS, Assistant Professor, M.Mus., West Virginia University, 1956.
 LAWRENCE, MARJORIE, Professor, *Emerita*.
 LEMASTERS, DONALD, Instructor, M.Mus., Northwestern University, 1949.
 McHUGH, CATHERINE, Professor, Ed.D., Columbia University, 1959.
 McINTOSH, DAVID, Associate Professor, *Emeritus*, M.A., University of Iowa, 1935.
 MUELLER, ROBERT, Professor, Ph.D., Indiana University, 1954.
 OLSSON, PHILLIP, Professor, M.Mus., Chicago Conservatory, 1949.
 POULOS, HELEN, Assistant Professor, D.M., Indiana University, 1971.
 RESNICK, ROBERT, Professor, M.Mus., Wichita State University, 1949.
 SIENER, MELVIN, Associate Professor, M.A., University of Iowa, 1954.
 SIMMONS, MARGARET, Visiting Assistant Professor, M.M., University of Illinois, 1976.
 TAYLOR, CHARLES, Associate Professor, Ed.D., Columbia University, 1950.
 UNDERWOOD, JERVIS, Associate Professor, Ph.D., North Texas State University, 1970.
 VALK, ALEXIS, Instructor, M.M., Ball State University, 1972.
 VOGLER, HELEN M., Instructor, *Emerita*.
 VONGUNDEN, HEIDI, Assistant Professor, Ph.D., University of California, 1976.
 WALLACE, MARY ELAINE, Professor, M.Mus., University of Illinois, 1954.
 WERNER, KENT, Associate Professor, Ph.D., University of Iowa, 1966.
 WHARTON, JOHN, Associate Professor, *Emeritus*, M.Mus., American Conservatory, 1940.

Philosophy (College of Liberal Arts)

AUDI, MICHAEL N., Associate Professor, Ph.D., Johns Hopkins University, 1970.
 CLARKE, DAVID S., JR., Associate Professor, Ph.D., Emory University, 1964.
 DIEFENBECK, JAMES A., Professor, Ph.D., Harvard University, 1950.
 EAMES, ELIZABETH R., Professor, Ph.D., Bryn Mawr College, 1951.
 EAMES, S. MORRIS, Professor, Ph.D., University of Chicago, 1958.
 ERICKSON, GLENN, Visiting Assistant Professor, Ph.D., Vanderbilt University, 1976.
 FRONDIZI, RISIERI, Professor, Ph.D., National University of Mexico, 1950.
 GILLAN, GARTH J., Associate Professor, Ph.D., Duquesne University, 1966.
 HAHN, LEWIS E., Professor, *Emeritus*, Ph.D., University of California, 1939.
 HAYWARD, JOHN, Professor, Ph.D., University of Chicago, 1949.
 HOWIE, JOHN, Associate Professor, Ph.D., Boston University, 1965.
 JOHNSON, MARK, Assistant Professor, Ph.D., University of Chicago, 1977.
 KELLY, MATTHEW J., Associate Professor, Ph.D., University of Notre Dame, 1963.
 LIU, SHU-HSIEN, Professor, Ph.D., Southern Illinois University, 1966.
 McCLOURE, GEORGE T., Professor and *Chairman*, Ph.D., Ohio State University, 1958.
 MIJUSKOVIC, BEN L., Associate Professor, Ph.D., University of California at San Diego, 1972.
 MOORE, WILLIS, Professor, *Emeritus*, Ph.D., University of California, 1936.
 PLOCHMANN, GOERGE KIMBALL, Professor, Ph.D., University of Chicago, 1950.
 SCHEDLER, GEORGE, Associate Professor, Ph.D., University of California at San Diego, 1973.
 SCHILPP, PAUL A., Visiting Professor, Ph.D., Stanford University, 1936.
 TENNEY, CHARLES, University Professor, *Emeritus*, Ph.D., University of Oregon, 1931.

Physical Education (College of Education)

ACKERMAN, KENNETH, Assistant Professor, M.A., Michigan State University, 1959.
 BLACKMAN, CLAUDIA J., Instructor, M.S.Ed., Southern Illinois University, 1968.
 BRECHTELSBAUER, KAY M., Instructor, M.S.Ed., Southern Illinois University, 1966.
 CARROLL, PETER, Assistant Professor, Ph.D., Pennsylvania State University, 1970.
 CRAVEN, JOYCE, Adjunct Instructor, M.F.A., University of North Carolina, 1975.
 DAVIES, DOROTHY R., Professor, *Emerita*, Ed.D., University of Cincinnati, 1944.
 DIRKS, W. EDWARD, Instructor, M.S., Southern Illinois University, 1964, Certificate, Physical Therapy, Ohio State University, 1965.
 ELLIS, WALTER, Assistant Professor, Ph.D., Southern Illinois University, 1977.
 FRANKLIN, C. C., Associate Professor, M.S.Ed., Indiana University, 1946.
 FRANKLIN, MARCILE, Instructor, M.S.Ed., Indiana University, 1944.
 GOOD, LARRY, Associate Professor, Ph.D., Temple University, 1968.
 HARTZOG, LEWIS, Instructor, M.E., Colorado State University, 1954.
 HUNTER, DEBORAH, Instructor, M.Ed., Memphis State University, 1975.

IDOINE, SALLIE, Assistant Professor, M.M., Florida State University, 1972.
 ILLNER, JULIE ANN, Instructor, M.S.Ed., Southern Illinois University, 1968.
 KNOWLTON, RONALD, Professor, Ph.D., University of Illinois, 1961.
 KOSTALIK, LINDA, Instructor, M.F.A., University of California at Irvine, 1973.
 LEFEVER, VICTORIA A., Assistant Professor, Ph.D., Texas Woman's University, 1971.
 LONG, LINN, Instructor, M.S., University of Colorado, 1967.
 MEADE, WILLIAM, Assistant Professor, M.A.Ed., University of North Carolina, 1950.
 OKITA, TED, Associate Professor, M.A., Northwestern University, 1964.
 PARATORE, JEAN, Adjunct Instructor, M.Ed., University of North Carolina, 1974.
 PERKINS, SALLY ROUSE, Adjunct Instructor, M.S., Indiana University, 1976.
 POTTER, MARJORIE BOND, Professor, *Emerita*, Ph.D., University of Southern California, 1958.
 REICH, KENNETH, Visiting Associate Professor, Ph.D., University of Southern California, 1975.
 SHEA, EDWARD, Professor, Ph.D., New York University, 1955.
 SPACKMAN, ROBERT, Associate Professor, M.S.Ed., Southern Illinois University, 1960.
 STEHR, JEAN, Associate Professor, M.A., Texas Woman's University, 1945.
 STOTLAR, JOHN, Associate Professor, D.P.Ed., Indiana University, 1954.
 TAYLOR, MERIDETH, Instructor, B.A., Evergreen State College, 1976.
 THIRER, JOEL, Assistant Professor, Ph.D., Florida State University, 1976.
 THORPE, JO ANNE LEE, Professor, Ph.D., Texas Woman's University, 1964.
 WEST, CHARLOTTE, Professor, Ph.D., University of Wisconsin, 1969.
 WILKINSON, JAMES, Associate Professor, D.P.Ed., Indiana University, 1958.
 ZIMMERMAN, HELEN, Professor, *Emerita*, Ph.D., University of Wisconsin, 1951.

Physics and Astronomy (College of Science)

ARVIN, MARTIN J., Professor, *Emeritus*, Ph.D., University of Illinois, 1934.
 BORST, WALTER L., Associate Professor, Ph.D., University of California, Berkeley, 1968.
 BOSE, SUBIR K., Associate Professor, Ph.D., University of Allahabad, India, 1967.
 BRASEFIELD, CHARLES J., Professor, *Emeritus*, Ph.D., Princeton University, 1927.
 CHANG-FANG, CHUEN-CHUEN, Assistant Professor, Ph.D., Duke University, 1961.
 CUTNELL, JOHN D., Associate Professor, Ph.D., University of Wisconsin, 1967.
 GRUBER, BRUNO J., Professor, Ph.D., University of Vienna, Austria, 1962.
 HENNEBERGER, WALTER C., Professor, Ph.D., Göttingen University, Germany, 1959.
 JOHNSON, KENNETH W., Associate Professor, Ph.D., Ohio State University, 1967.
 MARSHALL, LAURISTON C., Adjunct Professor, *Emeritus*, Ph.D., University of California, Berkeley, 1929.
 NICKELL, WILLIAM E., Professor, Ph.D., University of Iowa, 1954.
 SANDERS, FRANK C., JR., Associate Professor, Ph.D., University of Texas, 1968.
 SAPOROSCHENKO, MYKOLA, Associate Professor, Ph.D., Washington University, 1958.
 TELSCHOW, KENNETH L., Assistant Professor, Ph.D., University of California, Los Angeles, 1973.
 WATSON, RICHARD E., Professor and *Chairman*, Ph.D., University of Illinois, 1938.
 YOUNG, OTIS B., Professor, *Emeritus*, Ph.D., University of Illinois, 1928.
 ZIMMERSCHIED, CHARLOTTE, Assistant Professor, *Emerita*, A.M., University of Minnesota, 1923.
 ZITTER, ROBERT N., Professor, Ph.D., University of Chicago, 1962.

Physiology (College of Science)

BANERJEE, CHANDRA M., Professor, M.D., University of Calcutta, India, Ph.D., Medical College of Virginia, 1967.
 BOELKINS, JAMES N., Assistant Professor, Ph.D., University of Missouri, Columbia, 1971.
 BROWNING, RONALD A., Associate Professor, Ph.D., University of Illinois Medical Center, Chicago, 1971.
 CASPARY, DONALD M., Associate Professor, Ph.D., New York University, 1971.
 CLINE, WILLIAM H., JR., Professor, Ph.D., West Virginia University, 1965.
 DOORENBOS, NORMAN, Professor, Ph.D., University of Michigan, 1954.
 DUNAGAN, TOMMY T., Professor, Ph.D., Purdue University, 1960.
 ELLERT, MARTHA S., Associate Professor, Ph.D., University of Miami, 1968.
 ESTAVILLO, JAIME A., Assistant Professor, Ph.D., University of California, Davis, 1970.
 FAINGOLD, CARL L., Associate Professor, Ph.D., Northwestern University, 1970.
 FALVO, RICHARD E., Assistant Professor, Ph.D., University of Wyoming, 1970.
 FOOTE, FLORENCE M., Professor, *Emerita*, Ph.D., University of Iowa, 1940.
 FREUND, MATTHEW, Professor and *Chairman*, Ph.D., Rutgers University, 1958.
 GASS, GEORGE H., Professor, Ph.D., Ohio State University, 1955.
 HUNTER, WILLIAM S., Associate Professor, Ph.D., Michigan State University, 1971.
 KAPLAN, HAROLD M., Professor, *Emeritus*, Ph.D., Harvard University, 1933.
 LEHR, ROBERT P., JR., Associate Professor, Ph.D., Baylor University, 1971.

MICKUS, JOHN C., Assistant Professor, Ph.D., Southern Illinois University, 1972.
 MILLER, DONALD M., Professor, Ph.D., University of Illinois, 1965.
 MILLER, GINGER, Assistant Professor, Ph.D., Baylor University, 1976.
 MOORE, WILLIAM D., Assistant Professor, Ph.D., University of Rochester Medical School, 1976.
 MYERS, J. HURLEY, Associate Professor, Ph.D., University of Tennessee School of Medicine, 1969.
 NEQUIN, LYNN G., Associate Professor, Ph.D., University of Illinois Medical School, 1970.
 PARKE, WESLEY W., Professor, Ph.D., University of Connecticut, 1957.
 PETERSON, RUDOLPH N., Associate Professor, Ph.D., University of Florida, 1965.
 RICHARDSON, ALFRED W., Professor, Ph.D., University of Iowa, 1949.
 RUSSELL, LONNIE, Associate Professor, Ph.D., University of Nebraska, 1974.
 SOLLBERGER, ARNE R., Professor, M.D., Caroline Institute, Sweden, 1957.
 SOMANI, SATU M., Associate Professor, Ph.D., Liverpool University, England, 1969.
 WINET, HOWARD, Associate Professor, Ph.D., University of California, 1969.
 YAU, WILLIAM M., Assistant Professor, Ph.D., Medical College of Virginia, 1971.
 ZMUDA, MICHAEL J., JR., Assistant Professor, Ph.D., University of Minnesota, 1975.

Plant and Soil Science (School of Agriculture)

CASTER, ALFRED B., Professor, *Emeritus*, Ph.D., University of Arizona, 1941.
 COORTS, GERALD D., Professor and *Chairman*, Ph.D., University of Illinois, 1964.
 ELKINS, DONALD M., Professor, Ph.D., Auburn University, 1967.
 HILLYER, IRVIN G., Professor, Ph.D., Michigan State University, 1956.
 JONES, JOE H., Associate Professor, Ph.D., Ohio State University, 1960.
 KAPUSTA, GEORGE, Associate Professor, Ph.D., Southern Illinois University, 1975.
 LEASURE, J. K., Professor, Ph.D., University of Illinois, 1953.
 MALEIKE, RAYMOND R., Assistant Professor, Ph.D., Virginia Polytechnic Institute, 1974.
 MOWRY, JAMES B., Professor, Ph.D., Rutgers University, 1951.
 MYERS, OVAL, JR., Professor, Ph.D., Cornell University, 1963.
 OLSEN, FARREL J., Associate Professor, Ph.D., Rutgers University, 1961.
 PIERCEALL, GREGORY M., Assistant Professor, M.L.A., University of Illinois, 1975.
 PORTZ, HERBERT L., Professor, Ph.D., University of Illinois, 1954.
 SATCHELL, DONALD P., Associate Professor, Ph.D., North Carolina State University, 1951.
 STUCKY, DONALD J., Associate Professor, Ph.D., Purdue University, 1963.
 TWEEDY, JAMES A., Professor, Ph.D., Michigan State University, 1966.
 VARSA, EDWARD C., Assistant Professor, Ph.D., Michigan State University, 1970.

Political Science (College of Liberal Arts)

ALEXANDER, ORVILLE, Professor, *Emeritus*, Ph.D., University of Iowa, 1936.
 BAKER, JOHN H., Associate Professor and *Chairman*, Ph.D., Princeton University, 1961.
 BIANCHI, RINO, Instructor, M.A., Southern Illinois University, 1961.
 CHOU, IKUA, Professor, Ph.D., Fletcher School of Law and Diplomacy, 1949.
 DALE, RICHARD, Associate Professor, Ph.D., Princeton University, 1962.
 DERGE, DAVID RICHARD, Professor, Ph.D., Northwestern University, 1955.
 ERVIN, OSBIN L., Assistant Professor, Ph.D., University of Tennessee, 1974.
 FOSTER, JOHN L., Assistant Professor, Ph.D., University of Minnesota, 1971.
 GARNER, WILLIAM R., Associate Professor, Ph.D., Tulane University, 1963.
 GOODSSELL, CHARLES T., Professor, Ph.D., Harvard University, 1961.
 HANSON, EARL THOMAS, Professor, *Emeritus*, Ph.D., University of Illinois, 1948.
 HARDENBERGH, WILLIAM, Professor, Ph.D., University of Illinois, 1954.
 ISAKOFF, JACK F., Professor, *Emeritus*, Ph.D., University of Illinois, 1937.
 JACKSON, JOHN S., III, Associate Professor, Ph.D., Vanderbilt University, 1971.
 JACOBINI, HORACE B., Professor, Ph.D., University of Kansas, 1951.
 JONES, JUDSON H., Assistant Professor, Ph.D., University of Oregon, 1976.
 KAMARASY, EGON K., Assistant Professor, Doctor Politics, Budapest University, Hungary, 1942.
 KENNEY, DAVID T., Professor, Ph.D., University of Illinois, 1952.
 KLINGBERG, FRANK L., Professor, *Emeritus*, Ph.D., University of Chicago, 1938.
 LACHMAN, ALLAN C., Assistant Professor, Ph.D., University of California—Santa Barbara, 1975.
 LANDECKER, MANFRED, Associate Professor, Ph.D., Johns Hopkins University, 1965.
 LUSKIN, MARY LEE, Instructor, M.A., University of Michigan, 1970.
 MACE, GEORGE R., Associate Professor, Ph.D., Claremont Graduate School, 1963.
 MASON, RONALD M., Assistant Professor, Ph.D., University of Iowa, 1976.
 McGRATH, ROBERT A., Professor, *Emeritus*, Ph.D., University of Iowa, 1947.
 MILLER, ROY E., Assistant Professor, Ph.D., University of Illinois, 1971.
 MORRIS, MILTON D., Associate Professor, Ph.D., University of Maryland, 1970.

MORTON, WARD M., Professor, *Emeritus*, Ph.D., University of Texas, 1941.
 NELSON, RANDALL H., Professor, Ph.D., University of Michigan, 1956.
 PAINE, JOANN P., Associate Professor, Ph.D., University of Oregon, 1967.
 RIDGEWAY, MARIAN E., Professor, *Emerita*, Ph.D., University of Illinois, 1952.
 STAUBER, LELAND G., Associate Professor, Ph.D., Harvard University, 1964.
 TURLEY, WILLIAM S., Associate Professor, Ph.D., University of Washington, 1972.
 TURNER, MAX W., Professor, Ph.D., University of Iowa, 1947.
 VAN DER SLIK, JACK, Associate Professor, Ph.D., Michigan State University, 1967.
 WASBY, STEPHEN L., Professor, Ph.D., University of Oregon, 1962.

Psychology (College of Liberal Arts)

BAEZ, LUIS A., Assistant Professor, Ph.D., Princeton University, 1973.
 BEKKER, L. DEMOYNE, Associate Professor, Ph.D., Ohio State University, 1968.
 BLISS, DAVID K., Associate Professor, Ph.D., University of California at Berkeley, 1968.
 BRUTTEN, GENE J., Professor, Ph.D., University of Illinois, 1957.
 BUCK, TERENCE D., Associate Professor, Ph.D., University of Missouri, 1968.
 CARRIER, NEIL A., Professor, Ph.D., University of Michigan, 1956.
 DOLLINGER, STEPHEN J., Assistant Professor, Ph.D., University of Missouri-Columbia, 1977.
 DUNAGAN, SHIRLEY S., Instructor, M.S., University of Tennessee, 1954.
 DURLAK, JOSEPH A., Assistant Professor, Ph.D., Vanderbilt University, 1971.
 EHRENFREUND, DAVID, Professor and *Chairman*, Ph.D., State University of Iowa, 1947.
 GANNON, LINDA, Assistant Professor, Ph.D., University of Wisconsin, 1975.
 GRAHAM, JACK W., Professor, Ph.D., Purdue University, 1951.
 HARREN, VINCENT A., Professor, Ph.D., University of Texas, 1964.
 HAYNES, STEPHEN N., Associate Professor, Ph.D., University of Colorado, 1971.
 HELMS, JANET, Assistant Professor, Ph.D., Iowa State University, 1975.
 KELLEY, NOBLE, H., Professor, *Emeritus*, Ph.D., State University of Iowa, 1936.
 LIT, ALFRED, Professor, Ph.D., Columbia University, 1948.
 McHOSE, JAMES H., Professor, Ph.D., University of Iowa, 1961.
 McKILLIP, JOHN A., Assistant Professor, Ph.D., Loyola University of Chicago, 1974.
 McNEEL, STEVEN P., Associate Professor, Ph.D., University of California, Santa Barbara, 1969.
 MELTZER, DONALD, Professor, Ph.D., University of Pittsburgh, 1963.
 MILLER, H. RICHARD, Associate Professor, Ph.D., University of Missouri, 1967.
 MITCHELL, THOMAS O., Associate Professor, Ph.D., University of Colorado, 1969.
 MOLFESE, DENNIS L., Associate Professor, Ph.D., Pennsylvania State University, 1972.
 MOLFESE, VICTORIA, J., Assistant Professor, Ph.D., Pennsylvania State University, 1974.
 MORELAND, JOHN R., Associate Professor, Ph.D., University of Massachusetts, 1971.
 O'DONNELL, JAMES P., Associate Professor, Ph.D., University of Pittsburgh, 1965.
 PITZ, GORDON F., Professor, Ph.D., Carnegie-Mellon University, 1963.
 PURCELL, THOMAS D., Associate Professor, Ph.D., Southern Illinois University, 1965.
 RADER, GORDON E., Professor, Ph.D., Yale University, 1956.
 RADTKE, ROBERT C., Associate Professor, Ph.D., State University of Iowa, 1963.
 RAFFERTY, JANET E., Professor, Ph.D., Ohio State University, 1952.
 RAMANAIAH, NERELLA, Associate Professor, Ph.D., University of Oregon, 1971.
 RINGUETTE, EUGENE L., Associate Professor, Ph.D., Purdue University, 1963.
 SCHILL, THOMAS R., Professor, Ph.D., Oklahoma State University, 1963.
 SCHMECK, RONALD R., Associate Professor, Ph.D., Ohio University, 1969.
 SHOEMAKER, DONALD J., Professor, Ph.D., Ohio State University, 1955.
 SNYDER, JOHN F., Associate Professor, Ph.D., Loyola University, 1965.
 TINSLEY, HOWARD E. A., Associate Professor, Ph.D., University of Minnesota, 1971.
 WESTBERG, WILLIAM C., Professor, Ph.D., Pennsylvania State University, 1948.
 WENDT, RACHEL, Assistant Professor, *Emerita*, Ph.D., Southern Illinois University, 1966.

Radio-Television (College of Communications and Fine Arts)

BROWN, WILLIAM EDWARD, Assistant Professor, M.S., Southern Illinois University, 1974.
 CRISWELL, WILLIAM, Lecturer, B.S.J., West Virginia University, 1950.
 DYBVIG, HOMER E., Associate Professor, Ph.D., Southern Illinois University, 1970.
 GARRY, KENNETH, Lecturer, M.S., Indiana State University, 1966.
 HILDRETH, RICHARD, Assistant Professor, M.S., Syracuse University, 1968.
 KURTZ, JOHN L., Assistant Professor, Ph.D., Southern Illinois University, 1973.
 LYNCH, CHARLES T., Associate Professor and *Chairman*, Ph.D., Southern Illinois University, 1972.
 MAMPRE, VIRGINIA, Lecturer, M.S., University of Indiana, 1972.
 OLSON, THOMAS O., Associate Professor, Ph.D., Wayne State University, 1966.
 RICHARDSON, ALAN, Assistant Professor, Ph.D., Ohio University, 1977.

ROBBINS, BUREN C., Associate Professor, *Emeritus*, M.A., University of Iowa, 1935.
 ROCHELLE, DAVID, Instructor, B.F.A., University of Houston, 1956.
 RYAN, STEVE S., Assistant Professor, Ph.D., Ohio State University, 1974.
 SHIPLEY, CHARLES W., Professor, Ph.D., Florida State University, 1971.
 TERWISCHE, DAVID K., Assistant Professor, Ph.D., University of Missouri, 1971.
 WALKER, MYERS, Instructor, M.F.A., Southern Illinois University, 1971.

Recreation (College of Education)

ABERNATHY, WILLIAM, Assistant Professor, M.S.Ed., Southern Illinois University, 1963.
 ALLEN, JOHN R., Assistant Professor, Ph.D., Southern Illinois University, 1977.
 CRUNK, J. DANIEL, Visiting Instructor, M.S. in Ed., Southern Illinois University, 1975.
 FREEBERG, WILLIAM, Professor, D.Rec., Indiana University, 1950.
 LOVELAND, N. JEAN, Assistant Professor, D.Rec., Indiana University, 1975.
 McEWEN, DOUGLAS, Assistant Professor, Ph.D., Michigan State University, 1973.
 O'BRIEN, WILLIAM, Professor and *Chairman*, D.Rec., Indiana University, 1967.
 SMITH, OWEN, Assistant Professor, Ph.D., University of Utah, 1974.
 TAYLOR, LOREN, Professor, *Emeritus*, Ed.D., Columbia University, 1957.
 YANTIS, JOANNE G., Visiting Instructor, M.S. in Ed., Southern Illinois University, 1977.

Rehabilitation Institute (College of Human Resources)

ALLEN, HARRY A., Associate Professor, Ed.D., University of Arkansas, 1971.
 AZRIN, NATHAN H., Professor, Ph.D., Harvard University, 1956.
 BAKER, FRANCES M., Instructor, M.P.S., Western Kentucky University, 1972.
 BAKER, RICHARD J., Associate Professor, Ed.D., Auburn University, 1972.
 BENDER, ELEANOR, Assistant Professor, M.S., Southern Illinois University, 1962.
 BITTLE, RONALD, Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1974.
 BLACK, ARTHUR A., Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1974.
 BLOSSER, RONALD E., Adjunct Instructor, M.S., Southern Illinois University, 1974.
 BRADSHAW, HARLEY E., Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1972.
 BROWN, GARY M., Adjunct Assistant Professor, D.D.S., University of Tennessee, 1970.
 BRYSON, SEYMOUR L., Associate Professor, Ph.D., Southern Illinois University, 1972.
 CRAIG, KAREN E., Associate Professor, Ph.D., Purdue University, 1969.
 CUVO, ANTHONY J., Assistant Professor, Ph.D., University of Connecticut, 1973.
 DICKEY, THOMAS W., Assistant Professor, *Emeritus*, M.A., Southern Illinois University, 1964.
 EARLL, MARJORIE L., Adjunct Instructor, M.S., Southern Illinois University, 1966.
 EDELMAN, JORDAN, Adjunct Professor, Ph.D., Washington University, 1958.
 ERICKSON, RICHARD B., Adjunct Instructor, M.S., Stout State University, 1969.
 ESPOSITO, ANDREW R., Professor, M.D., Loyola University at Chicago, 1933.
 GARDNER, MARGARET S., Associate Professor, Ph.D., Northwestern University, 1960.
 GELLMAN, WILLIAM, Adjunct Professor, Ph.D., University of Chicago, 1955.
 GRENFELL, JOHN E., Professor, Ed.D., Oregon State University, 1966.
 GRODER, MARTIN, G., Adjunct Professor, M.D., Columbia University, 1964.
 GRUENDEL, GEORGE F., Adjunct Instructor, M.A., Northeast Missouri State, 1962.
 HAWLEY, IRENE B., Assistant Professor, Ph.D., Southern Illinois University, 1973.
 HAYS, RICHARD, Adjunct Instructor, M.S., Southern Illinois University at Carbondale, 1976.
 HENSON, DONALD E., Visiting Assistant Professor, Ph.D., Southern Illinois University, 1976.
 HOUSEWRIGHT, VERNON, Adjunct Assistant Professor, M.P.A., University of Arizona, 1962.
 LEE, ROBERT E., Associate Professor, Ph.D., University of Minnesota, 1964.
 LORENZ, JEROME R., Associate Professor, Ph.D., University of Wisconsin, 1973.
 MAGERS, GEORGE A., Adjunct Instructor, M.S., University of Illinois, Urbana, 1946.
 McDONALD, A. ANDREW, Assistant Professor, M.S., University of Wisconsin, Stout, 1969.
 MCVAY, SAMUEL E., Adjunct Instructor, M.S., Southern Illinois University, 1974.
 MIRANTI, JOSEPH P., Professor, M.D., Loyola University of Chicago, 1950.
 POPPEN, ROGER L., Associate Professor, Ph.D., Stanford University, 1968.
 RENZAGLIA, GUY A., Professor and *Director*, Ph.D., University of Minnesota, 1952.
 ROBINSON, WALTER G., Assistant Professor, Ph.D., Southern Illinois University, 1976.
 RUBIN, HARRIS B., Associate Professor, Ph.D., University of Chicago, 1965.
 RUSHING, PHILIP, Adjunct Assistant Professor, M.S.W., Washington University, St. Louis, 1960.
 SCHUMACHER, BROCKMAN, Professor, Ph.D., Washington University, 1969.
 SHAFTER, ALBERT J., Adjunct Professor, Ph.D., Iowa State University, 1953.
 SLICER, ALFRED, Adjunct Professor, M.A., Northwestern University, 1950.

SLOAN, WILLIAM, Adjunct Professor, Ph.D., Northwestern University, 1950.
 STALLS, ROBERT, Adjunct Instructor, B.A., Southern Illinois University, 1953.
 STECK, ROBERT C. Adjunct Professor, M.D., University of Illinois Medical School, 1942.
 VIECELI, LOUIS, Associate Professor, M.S.Ed., Southern Illinois University, 1959.

Religious Studies (College of Liberal Arts)

BENGTSON, DALE R., Assistant Professor, Ph.D., Hartford Seminary Foundation, 1971.
 HAYWARD, JOHN F., Professor and *Chairman*, Ph.D., University of Chicago, 1949.
 HUTCH, RICHARD A., Assistant Professor, Ph.D., University of Chicago, 1974.
 LEMERT, CHARLES C., Associate Professor, Ph.D., Harvard University, 1972.

Social and Community Services (College of Human Resources)

ALLIBAND, TERRY T., Assistant Professor, Ph.D., University of Iowa, 1974.
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 J.D., William Mitchell College of Law, 1957.
 AUERBACH, ARNOLD J., Professor, Ph.D., University of Pittsburgh, 1961.
 BHATTACHARYYA, KNANABROTA, Associate Professor, Ph.D., University of Delhi,
 India, 1969.
 BRELJE, MARTHA BROSE, Assistant Professor, A.M., Indiana University, 1963.
 BROWN, FOSTER S., JR., Instructor, M.S.W., New York University, 1966.
 BROWN, TALLON H., Assistant Professor, Ph.D., Southern Illinois University, 1973.
 CHARLES, EUNICE A., Assistant Professor, Ph.D., Boston University, 1973.
 COX, BEVERLY J., Instructor, M.S. in Ed., Southern Illinois University, 1973.
 DENISE, PAUL S., Assistant Professor, Ph.D., University of California, Berkeley, 1974.
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 HARPER, CLIFFORD D., Associate Professor, Ph.D., St. Louis University, 1972.
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 O'NEILL, TREVA H., Instructor, M.S.W., University of Denver, 1967.
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 ROBINSON, WALTER G., Assistant Professor, Ph.D., Southern Illinois University, 1976.
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 SCHRADER, SHARON L., Academic Adviser, M.S., Southern Illinois University, 1976.
 SMITH, STANLEY H., Professor, Ph.D., Washington State University, 1953.
 STURGIS, GLADYS M., Lecturer, M.S.L.S., Atlanta University, 1964.
 THOMAS, RICHARD M., Professor, D.Ed., University of California, Los Angeles, 1964.
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 WALKER, PEGGY J., Instructor, M.S.W., Washington University, 1967.

Sociology (College of Liberal Arts)

ALIX, ERNEST K., Associate Professor, Ph.D., Southern Illinois University, 1966.
 BROOKS, MELVIN, Associate Professor, Ph.D., University of Wisconsin, 1941.
 BURGER, THOMAS, Associate Professor, Ph.D., Duke University, 1972.
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 GASTON, JERRY C., Associate Professor and *Chairperson*, Ph.D., Yale University, 1969.
 GREENSTEIN, THEODORE N., Assistant Professor, Ph.D., Washington State University,
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 HAWKES, ROLAND K., Associate Professor, Ph.D., Johns Hopkins University, 1967.
 HENDRIX, LEWELLYN, Assistant Professor, Ph.D., Princeton University, 1974.
 JOHNSON, ELMER H., Professor, Ph.D., University of Wisconsin, 1950.
 LANTZ, HERMAN R., Professor, Ph.D., Ohio State University, 1950.
 LEMERT, CHARLES, Associate Professor, Ph.D., Harvard University, 1972.
 MARCUM, JOHN P., Assistant Professor, Ph.D., University of Texas, 1976.
 MEDDIN, JAY R., Assistant Professor, Ph.D., University of Kentucky, 1973.
 MUNCH, PETER A., Professor, *Emeritus*, Ph.D., University of Oslo, 1946.
 NALL, FRANK C., II, Associate Professor, Ph.D., Michigan State University, 1959.
 PATTERSON, EDGAR I., Instructor, M.A., University of Kansas, 1961.
 SNYDER, CHARLES R., Professor, Ph.D., Yale University, 1954.

Special Education (College of Education)

BRECHT, RICHARD, Assistant Professor, Ed.D., University of Missouri, 1973.
 CASEY, JOHN P., Professor, Ed.D., Indiana University, 1973.

CROWNER, JAMES, Professor, Ph.D., Michigan State University, 1960.
 EWING, NORMA J., Assistant Professor, Ph.D., Southern Illinois University, 1974.
 HISAMA, TOSHIKI, Assistant Professor, Ph.D., University of Oregon, 1971.
 JOINER, LEE M., Professor, Ph.D., Michigan State University, 1966.
 JUUL, KRISTEN D., Professor, Ed.D., Wayne State University, 1953.
 McKAY, ELIZABETH B., Associate Professor, *Emerita*, Ph.D., Syracuse University, 1952.
 MORGAN, HOWARD, Professor, Ed.D., Wayne State University, 1962.
 RAINEY, DAN, Assistant Professor, M.S.Ed., Southern Illinois University, 1956.
 STEPHENS, WYATT E., Professor and *Chairman*, Ph.D., University of Oklahoma, 1963.
 STONEBURNER, ROBERT L., Assistant Professor, Ph.D., University of Illinois, 1974.
 TESKA, JAMES, Associate Professor, Ph.D., University of Illinois, 1969.

Speech Communication (College of Communications and Fine Arts)

ACKERMAN-ROSS, SUSAN, Assistant Professor, Ph.D., Pennsylvania State University, 1976.
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 BYTWERK, RANDALL L., Assistant Professor, Northwestern University, 1975.
 DEETZ, STANLEY A., Assistant Professor, Ph.D., Ohio University, 1973.
 FISH, ROBERT A., Assistant Professor, Ph.D., University of Oklahoma, 1970.
 GOODIEL, EUNICE B., Assistant Professor, *Emerita*, M.A., Northwestern University, 1941.
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 HIGGINBOTHAM, DOROTHY, Professor, Ph.D., Northwestern University, 1961.
 HOLDRIDGE, WILLIAM E., Assistant Professor, Ph.D., University of Illinois, 1974.
 KLEINAU, MARION L., Professor, Ph.D., University of Wisconsin, 1961.
 KLEINAU, MARVIN D., Assistant Professor, M.S. Ed., Illinois State University, 1960.
 LANIGAN, RICHARD L., Associate Professor, Ph.D., Southern Illinois University, 1969.
 MacDONALD, DONALD, Associate Professor, Ph.D., Michigan State University, 1971.
 McCAULIFF, MARY LOU, Assistant Professor, Ph.D., University of Kansas, 1974.
 McGLONE, EDWARD L., Professor and *Chairman*, Ph.D., Ohio University, 1967.
 McHUGHES, JANET LARSEN, Assistant Professor, Ph.D., Northwestern University, 1972.
 MICKEN, RALPH A., Professor, *Emeritus*, Ph.D., Northwestern University, 1948.
 PACE, THOMAS J., Professor, Ph.D., University of Denver, 1957.
 POTTER, DAVID J., Professor, *Emeritus*, Ph.D., Columbia University, 1943.
 SANDERS, KEITH R., Professor, Ph.D., University of Pittsburgh, 1968.
 SMITH, WILLIAM D., Associate Professor, Ph.D., Southern Illinois University, 1964.
 SOLDATI, LYNN LEONARD, Instructor, M.A., University of Ibadan, Nigeria, 1967.
 TALLEY, C. HORTON, Professor, *Emeritus*, Ph.D., State University of Iowa, 1936.
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Speech Pathology and Audiology (College of Communications and Fine Arts)

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 BRACKETT, ISAAC P., Professor, Ph.D., Northwestern University, 1947.
 BRUTTEN, GENE J., Professor, Ph.D., University of Illinois, 1957.
 FRANZEN, RICHARD L., Assistant Professor, Ph.D., University of Iowa, 1970.
 GARBUTT, CAMERON W., Associate Professor, *Emeritus*, Ph.D., Louisiana State University, 1951.
 HOSHIKO, MICHAEL S., Professor, Ph.D., Purdue University, 1957.
 KOEPP-BAKER, HERBERT, Professor, *Emeritus*, Ph.D., University of Iowa, 1938.
 MONCUR, JOHN P., Professor and *Chairman*, Ph.D., Stanford University, 1950.
 PACE, SUE A., Professor, Ph.D., Northwestern University, 1966.
 WEBB, PATRICIA, Instructor, M.Ed., University of Florida, 1975.

Technical Careers (School of Technical Careers)

ALDEN, Dale, Visiting Associate Professor, Ph.D., University of Pittsburgh, 1970.
 BLANCHET, MICHAEL C., Visiting Instructor, M.P.H., University of Oklahoma, 1976.
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 BROWN, TERENCE, Assistant Professor, Ph.D., Southern Illinois University, 1975.
 DAVIS, HARRY E., Visiting Assistant Professor, M.H.A., Washington University Medical School, 1961.
 FALKENBERRY, WILLIAM A., Field Representative, B.A., Southern Illinois University, 1976.
 HARRISON, FRED E., Assistant Professor, Ed.D., University of Denver, 1975.
 HERTZ, VIVIENNE, Assistant Professor, Communications, M.A., Southern Illinois University, 1968.

HOLMES, JOHN S., Instructor, Baccalaureate Program, M.S., Southern Illinois University, 1972.
 ICENOGLE, DALE F., Assistant Professor, B.A., University of Minnesota, 1970.
 JOHNSTON, CHESTER E., Associate Professor, M.A., George Peabody College for Teachers, 1953.
 LAYER, ROBERT G., Professor, Ph.D., Harvard University, 1952.
 NICE, PAUL W., Visiting Instructor, M.B.A., Cornell University, 1975.
 NOVICK, JEHLIEL, Assistant Professor, Ph.D., Southern Illinois University, 1970.
 PAYNE, MICHAEL A., Visiting Instructor, M.S.Ed., Southern Illinois University, 1974.
 PRATT, ARDEN L., Professor, Ed.D., State University of New York at Buffalo, 1968.
 REYNOLDS, R., JOHN, Associate Professor and *Chairman*, Baccalaureate Program, Ph.D., Southern Illinois University, 1971.
 ROBB, JAMES A., Associate Professor, Ph.D., Southern Illinois University, 1974.
 SMITH, DONALD RAY, Assistant Professor, Mathematics and Science, M.S.Ed., Southern Illinois University, 1967.
 SODERSTROM, RUTH, Academic Adviser, M.S., New York University, 1939.
 SUTTON, JOHN R., Assistant Professor, M.S.Ed., Southern Illinois University, 1969.
 WALSH, E. MICHAEL, Assistant Professor, Ph.D., Southern Illinois University, 1974.
 WATSON, PHILIP C., Instructor, Mathematics and Science, B.A., Southern Illinois University, 1965.
 WORKUN, ARTHUR E., Associate Professor, Communications, M.S.Ed., Illinois State University, 1955.

Technology (School of Engineering and Technology)

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 ANDREWS, PAUL E., Assistant Professor, M.S., Memphis State University, 1972.
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 BELL, RODNEY A., Visiting Assistant Professor, M.S., Illinois State University, 1976.
 BESTERFIELD, DALE H., Associate Professor, Ph.D., Southern Illinois University, 1971.
 CHEN, HAN LIN, Instructor, M.A., Southern Illinois University, 1958.
 COWLEY, WAYNE D., Visiting Assistant Professor, D.Ed., Texas A&M University, 1975.
 DOTY, LEONARD A., Visiting Assistant Professor, M.B.A., University of Chicago, 1970.
 DUNNING, E. LEON, Professor and *Chairman*, Ph.D., University of Houston, 1967.
 FERKETICH, ROBERT R., Instructor, M.S., Southern Illinois University, 1962.
 FERRELL, STUART, Associate Professor, Ph.D., University of Missouri, Rolla, 1971.
 GORDON, SAMUEL J., Visiting Assistant Professor, Ph.D., Massachusetts Institute of Technology, 1971.
 HART, WILLARD C., Instructor, *Emeritus*, B.S., University of Illinois, 1939.
 JOHNSON, MARVIN E., Professor, Ed.D., University of Missouri, Columbia, 1959.
 KAZMIERSKI, THOMAS J., Visiting Assistant Professor, M.S., Kansas State College, 1974.
 KLOPP, MARK E., Associate Professor, M.S.Ed., Pennsylvania State University, 1954.
 MEYERS, FRED E., Visiting Assistant Professor, M.B.A., Capitol University, 1975.
 MISRA, SATYA DEB, Instructor, B.E., Calcutta University, 1964.
 MOELLER, C. MERRILL, Associate Professor, M.S.C.E., Kansas State University, 1951.
 O'HAGAN, ROBERT E., Visiting Assistant Professor, M.S., Wisconsin State University, 1974.
 OTT, CARLYLE G., Assistant Professor, M.S.Ed., Southern Illinois University, 1951.
 ROGERS, C. LEE, Assistant Professor, Ph.D., Southern Illinois University, 1975.
 WILLIAMSON, JERRY L., Visiting Assistant Professor M.S.M.E., Rensselaer Polytechnic Institute, 1964.

Theater (College of Communications and Fine Arts)

CANNON, JOHN, Assistant Professor, M.F.A., Carnegie-Mellon University, 1968.
 IDOINE, SALLIE, Assistant Professor, M.S., Florida State University, 1972.
 KOSTALIK, LINDA, Instructor, M.F.A., University of California, 1973.
 MCLEOD, ARCHIBALD, Professor, *Emeritus*, Ph.D., Cornell University, 1943.
 MOE, CHRISTIAN H., Professor, Ph.D., Cornell University, 1958.
 PAYNE, DARWIN R., Associate Professor and *Acting Chairman*, M.F.A., Brandeis University, 1971.
 PROCTOR, JOSEPH M., Assistant Professor, M.F.A., Brandeis University, 1971.
 REYNOLDS, HOWARD LANGDON, Assistant Professor, M.F.A., Smith College, 1969.
 STEWART-HARRISON, EELIN, Associate Professor, Ph.D., Louisiana State University, 1968.
 STRAUMANIS, ALFREDS, Associate Professor, Ph.D., Carnegie-Mellon University, 1966.
 TALAROWSKI, JOSEPH W., Professor, Ph.D., University of Denver, 1966.
 TAYLOR, MERIDETH, Lecturer, B.A., Evergreen State College, 1976.

Thermal and Environmental Engineering (School of Engineering and Technology)

CHEN, JUH W., Professor and *Chairman*, Ph.D., University of Illinois, 1959.
COOK, ECHOL E., Associate Professor, Ph.D., Oklahoma State University, 1970.
HELMER, WAYNE ALLEN, Assistant Professor, Purdue University, 1974.
HESKETH, HOWARD E., Professor, Ph.D., Pennsylvania State University, 1968.
JEFFERSON, THOMAS B., Professor, Ph.D., Purdue University, 1955.
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MUCHMORE, CHARLES B., Associate Professor, Ph.D., Southern Illinois University, 1970.
O'BRIEN, WILLIAM S., Assistant Professor, Ph.D., West Virginia University, 1972.
PETRIE, THOMAS W., Associate Professor, Ph.D., University of Minnesota, 1969.
RAJAN, S., Assistant Professor, Ph.D., University of Illinois, 1970.
SINHA, ATMESH K., Associate Professor, University of Sheffield, England, 1963.
STOEVEER, HERMAN J., Professor, *Emeritus*, University of Illinois, 1934.

Vocational Education Studies (College of Education)

ANDERSON, MARCIA, Assistant Professor, Ph.D., Southern Illinois University, 1975.
BAILEY, LARRY J., Professor, Ed.D., University of Illinois, 1968.
BITTLE, R. E., Professor, Ed.D., University of Florida, 1956.
BOBELL, JOHN L., Visiting Assistant Professor, Ed.D., University of Missouri, 1973.
BORTZ, RICHARD F., Associate Professor, Ph.D., University of Minnesota, 1967.
BOSS, RICHARD D., Visiting Associate Professor, Ed.D., Oregon State University, 1968.
BRAMES, THOMAS J., Visiting Assistant Professor, Ed.D., Utah State University, 1975.
BRYANT, ERNEST E., Visiting Assistant Professor, Ph.D., Southern Illinois University, 1976.
BUBNAS, PHYLLIS, Assistant Professor, M.S., Southern Illinois University, 1960.
BUILA, THEODORE, Associate Professor, Ph.D., Cornell University, 1968.
BURGER, OPAL JUNE, Assistant Professor, M.S.Ed., Southern Illinois University, 1961.
CARTER, ROSE MARY, Assistant Professor, Ph.D., Purdue University, 1970.
CHRISTENSEN, PETER A., Visiting Assistant Professor, Ph.D., Colorado State University, 1976.
DEWULF, BERNARD G., Visiting Assistant Professor, Ph.D., Washington University (St. Louis), 1962.
ERICKSON, JOHN H., Professor, Ed.D., Pennsylvania State University, 1953.
FULTS, ANNA CAROL, Professor, Ph.D., Ohio State University, 1946.
GOOCH, BILL G., Assistant Professor, Ed.D., University of Tennessee, 1973.
HARBERT, DONALD L., Visiting Assistant Professor, Ed.D., University of Florida, 1968.
HEISLER, ARLENE J., Assistant Professor, M.S., Southern Illinois University, 1959.
HOLMES, DAVID C., Visiting Assistant Professor, Ph.D., Colorado State University, 1974.
HUCK, JOHN F., Assistant Professor, Ed.D., University of Illinois, 1973.
JENKINS, JAMES, Professor, Ed.D., Pennsylvania State University, 1955.
KEENAN, DOROTHY, Professor, Ed.D., University of Illinois, 1962.
KIRKPATRICK, THOMAS E., Visiting Assistant Professor, Ph.D., The Ohio State University, 1975.
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LITTLE, RICHARD L., Visiting Associate Professor, Ed.D., Arizona State University, 1968.
LUPCHO, STEVE E., Visiting Assistant Professor, Ed.D., East Texas State University, 1974.
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RAHE, HARVES C., Professor, Ed.D., Indiana University, 1950.
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STADT, RONALD W., Professor, Ed.D., University of Illinois, 1962.

STITT, THOMAS R., Professor, Ph.D., Ohio State University, 1967.
SULLIVAN, JAMES A., Professor and *Chairman*, Ed.D., West Virginia University, 1967.
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Zoology (College of Science)

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BRANDON, RONALD A., Professor, Ph.D., University of Illinois, 1962.
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DYER, WILLIAM G., Professor, Ph.D., Colorado State University, 1965.
ELLINGER, MARK S., Assistant Professor, Ph.D., University of Minnesota, 1976.
ENGLERT, DUWAYNE C., Professor, Ph.D., Purdue University, 1964.
FISHER, HARVEY I., Professor, *Emeritus*, Ph.D., University of California at Berkeley, 1942.
GALBREATH, EDWIN C., Professor, Ph.D., University of Kansas, 1951.
GAROIAN, GEORGE, Associate Professor, Ph.D., University of Illinois, 1956.
GEORGE, WILLIAM G., Associate Professor, Ph.D., University of Arizona, 1961.
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HARDIN, JAMES W., Assistant Professor, Ph.D., Southern Illinois University, 1974.
HEIDINGER, ROY C., Associate Professor, Ph.D., Southern Illinois University, 1970.
KLIMSTRA, WILLARD D., Professor, Ph.D., Iowa State University, 1949.
LeFEBVRE, EUGENE A., Associate Professor, Ph.D., University of Minnesota, 1962.
LEWIS, WILLIAM M., Professor and *Chairman*, Ph.D., Iowa State University, 1949.
MARTAN, JAN, Professor, Ph.D., University of Oregon, 1963.
MCPHERSON, JOHN E., JR., Associate Professor, Ph.D., Michigan State University, 1968.
PAPARO, ANTHONY A., Associate Professor, Ph.D., Fordham University, 1969.
PETERSEN, BRUCE W., Assistant Professor, Ph.D., University of Colorado, 1968.
SHEPHERD, BENJAMIN A., Associate Professor, Ph.D., Kansas State University, 1970.
STAHL, JOHN B., Associate Professor, Ph.D., Indiana University, 1958.
STAINS, HOWARD J., Professor, Ph.D., University of Kansas, 1955.
STEIN, HILDA, Associate Professor, *Emerita*, M.S. University of Illinois, 1929.
WARING, GEORGE H., Associate Professor, Ph.D., Colorado State University, 1966.

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Objectives of Southern Illinois University

TO EXALT BEAUTY

*In God,
in nature, and
in art;
Teaching how to love the best
but to keep the human touch;*

TO ADVANCE LEARNING

*In all lines of truth
wherever they may lead,
Showing how to think,
rather than what to think,
Assisting the powers
of the mind
In their self-development;*

TO FORWARD IDEAS AND IDEALS

*In our democracy,
Inspiring respect for others
as for ourselves,
Ever promoting freedom
with responsibility;*

TO BECOME A CENTER OF ORDER AND LIGHT

*That knowledge may lead
to understanding
And understanding
to wisdom.*



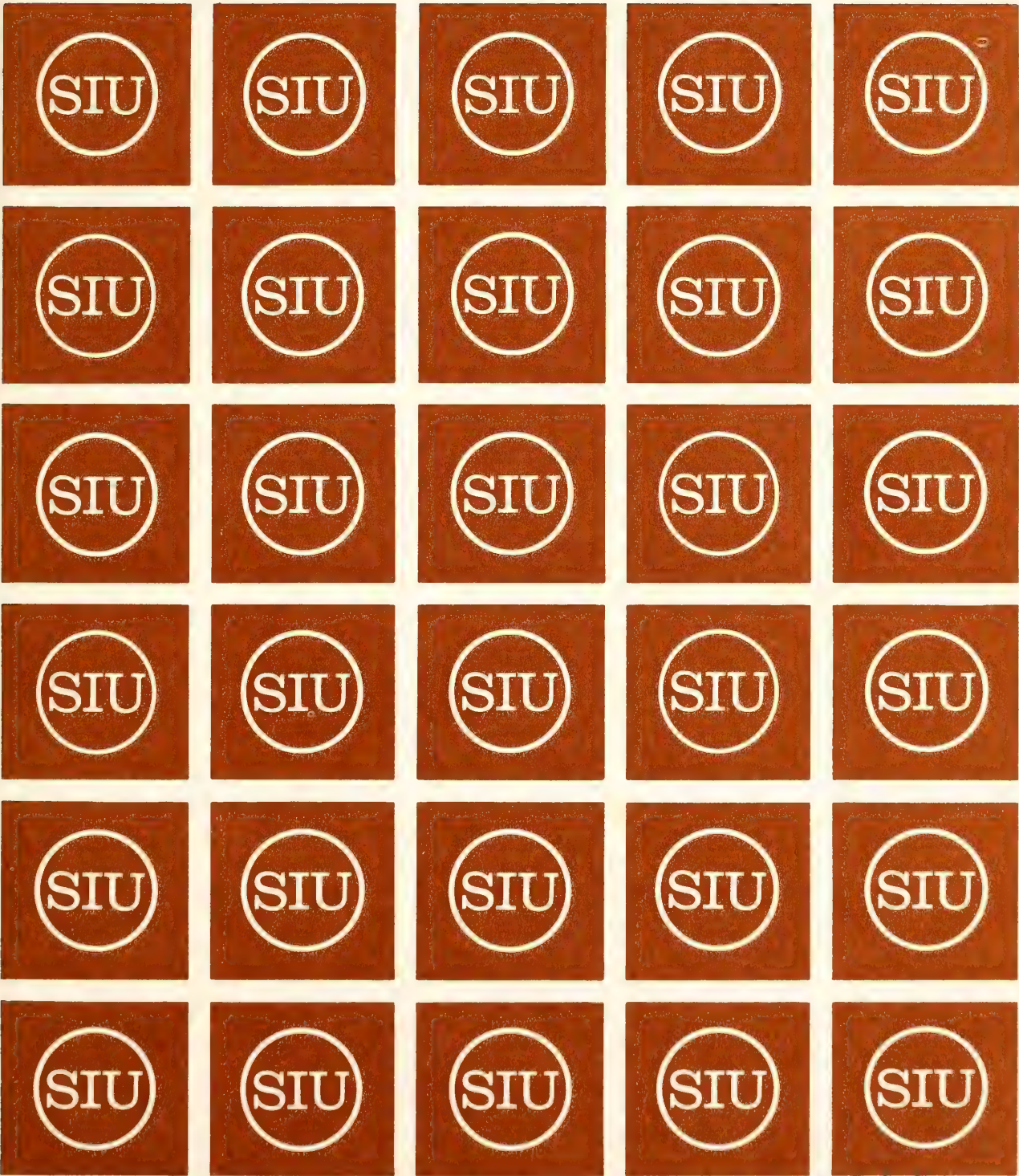
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Southern Illinois University Bulletin

1978-1979 Graduate Catalog

Southern Illinois University
at Carbondale



24-1

Southern Illinois University at Carbondale is required to comply with the provisions of Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973. Title IX mandates that no person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. Section 504 provides that "no otherwise qualified handicapped individual . . . shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Inquiries concerning the application of Title IX or Section 504 regulations may be directed to Dr. Mary Helen Gasser or Mr. Richard C. Hayes, University Affirmative Action Office, Anthony Hall, Room 104, telephone 536-6618.

This publication provides information about Southern Illinois University at Carbondale. Primary attention is given to its academic programs, rules and regulations, and procedures. A student beginning graduate work during the period of time covered by this catalog (summer, 1978 through spring, 1979) is subject to academic requirements of the Graduate School and of the degree programs as specified herein. If the requirements are subsequently changed, the student may elect either to meet the requirements in force in his particular degree program immediately prior to the change, or to meet the new requirements. If he elects the former option he shall be guaranteed a minimum period of time from the date that the program requirements were changed within which minimum period he will be permitted to complete the old degree requirements. This minimum period shall be determined by the department or other degree-program unit, subject to the following two constraints: First, the minimum period prescribed by the department may not exceed the standard Graduate School limitation that credit applied toward fulfillment of requirements for the master's degree must have been earned within a six-year period preceding the completion of the degree, and that a doctoral student must complete degree requirements within five years after admission to candidacy. Second, the minimum period shall encompass no less than two years for master's degree students and three years for doctoral students, with the exception that a student in the last stage of his degree work when requirements change (a master's student who has completed all requirements except the thesis or research report and the final examination or a doctoral student who has been admitted to Ph.D. candidacy) shall not be subject to the new requirements but may complete his degree within the standard Graduate School limitations stated above. A student who elects to follow old requirements, but does not complete his work within the minimum period prescribed by the department, shall, unless he was in the last stage of his degree work when requirements changed, be subject to requirements in force at the time he completes his degree, and shall be subject to the standard Graduate School limitations described above. The University reserves the right to change information contained herein on matters other than curricular requirements without notice when circumstances warrant such action. For further information contact the Graduate School, Woody Hall, B-103, Southern Illinois University, Carbondale, Illinois 62901, area code 618, 536-7791.



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1978-1979
Graduate Catalog

Southern Illinois University
at Carbondale

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This Catalog

The Graduate Catalog covers in detail questions concerning the Graduate program of Southern Illinois University at Carbondale for the period from summer, 1978 through spring, 1979. It supersedes Volume 18, Number 7 of the *Southern Illinois University Bulletin*.

The following publications may be obtained free from University Graphics, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Graduate Catalog

Undergraduate Catalog

School of Law Catalog

Schedule of Classes. Please specify term (fall, spring, or summer).

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Board of Trustees and Officers of Administration

Board of Trustees of Southern Illinois University

	Term Expires
Harris Rowe, <i>Chairman</i> , Jacksonville	1983
Ivan A. Elliott, Jr., <i>Vice-chairman</i> , Carmi	1979
Margaret Blackshere, <i>Secretary</i> , Madison	1979
Elizabeth Byrnes, Carbondale (Student Trustee)	1978
Wayne Heberer, Belleville	1981
James M. Grandon, Alton (Student Trustee)	1978
William R. Norwood, Elk Grove Village	1983
A. D. Van Meter, Jr., Springfield	1981
James M. Brown, <i>General Secretary of the Southern Illinois University System</i>	

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Michael R. Dingerson, *Associate Dean*, Graduate School and *Director*, Research Development and Administration

University Calendar

Summer Session, 1978

Eight-Week Session Begins
Independence Day Holiday
Final Examinations
Commencement

Monday, June 12, 7:30 A.M.
Tuesday, July 4
Thursday and Friday, August 3-4
Saturday, August 5

Fall Semester, 1978

Semester Classes Begin
Labor Day Holiday
Thanksgiving Day Holiday

Final Examinations

Monday, August 21
Monday, September 4
Saturday, November 18, 12:00 NOON—
Monday, November 27, 8:00 A.M.
Monday, December 11—Saturday,
December 16

Spring Semester, 1979

Semester Classes Begin
Lincoln's Birthday Holiday
Spring Vacation

Good Friday
Final Examinations
Commencement

Monday, January 15
Monday, February 12
Saturday, March 10, 12:00 NOON—
Monday, March 19, 8:00 A.M.
Friday, April 13
Monday, May 7—Saturday, May 12
Saturday, May 12



Aerial View of Campus



Woody Hall — Graduate School Location



Morris Library



Wham Education Building

1 The Graduate School

The Role of the Graduate School

The primary concern of the Graduate School is graduate instruction and research at Southern Illinois University at Carbondale. The Graduate School therefore plays an essential role in development of instructional and research programs, in acquisition of funds, and in procurement of facilities necessary to encourage and support research by members of its scholarly community. Through students who meet the Graduate School's high standards of achievement by completing advanced courses of study and through students and faculty members who achieve significant results in their research, the Graduate School makes its contribution to the public welfare of the region, the state, the nation, and a number of other countries.

The Graduate School, as a part of Southern Illinois University at Carbondale, is fully accredited by the North Central Association of Colleges and Secondary Schools. Other accreditations and affiliations include:

Accrediting Council of the American Assembly of Collegiate Schools of Business
(undergraduate and master's level programs)

American Association for Accreditation of Laboratory Animal Care

American Chemical Society

American Council on Education for Journalism

American Psychological Association

American Speech and Hearing Association by American Board of Examiners in
Speech and Hearing

Illinois Office of Education

Superintendent of Education

State Board of Education

National Council for Accreditation of Teacher Education

National Association of Schools of Music

Society of American Foresters

Office of Research Development and Administration

The Office of Research Development and Administration is the University administrative unit primarily responsible for research administration and development. The functions of the office divide into two major categories. One is concerned with activities that are funded by federal, state, and local governments as well as by foundations, private industry, and other external funding sources. The second major category is the internal research program which is supported with State funds.

The Office of Research Development and Administration provides a number of

services for faculty and for students who desire to submit research proposals to funding agencies. These include providing a resource library containing guidelines and application forms for applying for grants. General consultation is provided in proposal and budget preparation.

RESEARCH SHOPS AND SERVICES

To further assist faculty researchers, the Office of Research Development and Administration operates ten support service units for their use. The *Central Research Shop* is a facility which designs, repairs, and constructs special equipment required by researchers. The *Scientific Photography and Illustrations Unit* offers consultation and technical assistance to all researchers in need of scientific photography as an integral part of their research endeavors. For those researchers who use animals, a central animal facility or *Vivarium* is maintained under the direction of a veterinarian to insure proper and humane care and management of animals as is necessary and legally required. The *Center for Electron Microscopy* houses two scanning and two transmission scopes, as well as other related equipment for the use of faculty researchers. The *Fine Instruments Research Shop* has two components: (1) *Electrical* and (2) *Mechanical*. This shop provides consultation, design, and fabrication of sophisticated electronic and mechanical instruments. The *Glassblowing Research Shop* provides design and fabrication of glass apparatus for research use. The *Electronics Research Shop* provides a repair capability for electronics equipment. The *Machine Research Shop* provides design and fabrication of materials demanding medium and large machining capabilities. The *Amino Acid Analyzer* provides amino-acid analyses of samples of both physiological and hydrolysate nature.

Other research facilities are available throughout the campus and in the region relating to the various master's degree and doctoral programs of the Graduate School.

Facilities and Services

Morris Library

Morris Library contains over 1,450,000 volumes and subscribes to more than 18,000 current periodicals. Over 59,000 volumes were added to the collection last year. In addition to books and journals, the library has extensive collections of maps, manuscripts, phonograph records, and 1,500,000 units of microfilm material. Morris Library is also a depository for federal, state, and U.N. documents. A major source for research in the behavioral sciences is the Human Relations Area files, consisting of copies of documents, books, articles, and manuscripts covering 170 world cultures. A separately housed law library is also available.

Supplementing the resources of Morris Library is the Center for Research Libraries (Chicago), in which the University holds membership. A printed book catalog of the center's some 2,000,000 volumes and microfilm copies of the card catalogs of the University of Illinois library and Illinois State Library are available for consultation. Limited on-line computer-based bibliographical search capabilities with Systems Development Corporation (SDC) and Lockheed Information System (LIS) has been initiated. The extensive scientific journal collection of the Argonne National Laboratory is also available to graduate students in person or on inter-library loan.

Computing Services

Computing Services supports the academic, administrative, and research needs of the University and the School of Medicine. The academic and research needs of faculty and students are supported by Academic Computing Services. Administra-

tive activities are supported by Administrative Computing Services. Both groups lend support to the Medical Education Health Science Information Systems. Major areas of service include maintenance of a large program library, consultation on computer-related problems, and periodical, noncredit instruction in computing. The major hardware component of the center is an IBM S/370, Model 158 computer. A special facility of the center is an instructional laboratory equipped with on-line terminals for interactive computing. There is also a variety of unit record equipment available on an open-shop basis including keypunching, sorting, and tabulating equipment.

Placement Services of the Career Planning and Placement Center

The Placement Services assists students and alumni seeking career employment. Maximum benefit from the services is assured for students who file their resumes approximately one semester prior to graduation. Alumni should periodically update their resumes which are placed on permanent file. All inquiries concerning this free service should be made to the Career Planning and Placement Center office.

Housing

On-Campus Housing. On-campus housing is available in residence halls for single graduate students. Some single rooms are available at an extra cost. All contracts will be for room and board.

University-owned housing for married students includes 304 unfurnished two- or three-bedroom air-conditioned apartments; 272 furnished efficiency, one- or two-bedroom apartments. Because the demand for university housing for married students exceeds the supply, information should be requested from University Housing, Building D, Washington Square.

Off-Campus Housing. The Off-Campus Housing Office, Building B, Washington Square, maintains current information on off-campus rooms, apartments, houses for rent or for sale, and trailer parks. Experience has shown that satisfactory arrangements cannot be made by mail. A personal visit is usually required. Prices vary widely, ranging from \$50 a month for trailer spaces to \$250 a month or more for houses and apartments. All arrangements for off-campus housing and all business transactions in the matter of this type of housing are the sole responsibility of the student and the owner of the facility.

Health Service

Health Service, 115 Small Group Housing, provides medical care to students, including 24-hour emergency service, hospitalization, speciality care, primary care, intermediate or infirmary care, and prevention programs through payment of the medical benefit fee. Health Service also offers x-ray, laboratory, and pharmacy services. Hours of the service are 8:00 A.M. to 5:00 P.M. Monday through Friday and 8:00 A.M. to 1 P.M. on Saturday.

For emergency care when Health Service is not open, students should go to Memorial Hospital of Carbondale emergency room. If an ambulance is required, a student may call 453-3000, the SIU emergency number during the day or night.

University Ombudsperson, Office of the

The University Ombudsperson Office assists students and other members of the community in resolving large and small problems arising within the University context. Oftentimes this involves cutting through red tape, establishing communication, or simply pointing out proper procedures to follow. In cases where it is necessary, conciliation is sought by mediation between the individual and agents of the University. No matter whether the problem is simple or complex, an effort is

made to handle each case with care and dispatch. The thrust is toward finding reasonable, fair resolutions to problems and toward helping assure that individuals are treated with respect.

All inquiries are treated confidentially. The office is located in Woody Hall, C-302, phone (618) 453-2411, and is open 8-5, Monday through Friday.

Financial Assistance

Financial assistance is available to qualified students in all fields of study in the form of (1) graduate assistantships where one serves as a classroom teacher or assistant, as a research worker, or as an administrative assistant, (2) fellowships or traineeships, (3) scholarships, (4) college work-study programs, and (5) loans. There are basic regulations that relate to these awards. Students should make application for the graduate assistantships, fellowships, or traineeships through the department to which they have been admitted. Information and application forms for the scholarships, student work program, and loans may be had by contacting the Student Work and Financial Assistance Center.

A student should submit an application for the particular award by February 1. Students should be sure that their applications for admission are complete including the submission of three transcripts to the Graduate School to assure consideration for an award. Unclassified graduate students (those not working for a degree) are eligible only for the student work program.

Graduate assistant appointments, graduate fellowships and most traineeships include remission of tuition, but fees must be paid. A student may receive no more than two calendar years of graduate-student support while a master's level student. A student may receive no more than four calendar years of graduate-student support while a doctoral-level student. These time limits apply to assistantships, fellowships, traineeships, and other similar awards and appointments administered by the University, regardless of source of funds.

Students who are awarded graduate assistantships, fellowships, or traineeships, but who have not furnished official proof of their most recent degree to the Graduate School shall be considered to be on term appointment for one semester only. No one will be appointed to a second term until an official transcript indicating receipt of the degree is received in the Graduate School.

The number of credit hours for which a graduate student may be enrolled is governed by the regulations on minimum and maximum course loads as outlined on page 27.

Graduate Assistant Appointments

Graduate assistant appointments are available in a number of departments, research agencies, and administrative units. This type of appointment comprises the single largest number of awards offered by the University. For these appointments, the students apply directly to the department chairperson of the department to which each has been admitted; this person may in turn refer the student to a research agency or administrative unit that may have need for a student with the skills indicated. Only those students who have been admitted to degree programs are eligible to be appointed as graduate assistants. Unclassified students are not eligible for graduate assistant appointments.

Service of 20 hours per week, or a corresponding load in teaching, is required for a half-time appointment. Graduate assistantship appointments pay stipends of at least \$341 per month for master's students for half-time duties; stipends increase at the Ph.D. level (a minimum of \$362 per month). Appointments are normally made for the nine-month academic year. There are a limited number of appointments for

the summer session. Information about the specific conditions of the appointment should be directed to the department or office making the award.

Graduate Fellowships and Traineeships

The Graduate School and specific departments offer a number of graduate fellowships and traineeships. The number varies depending upon the funds available for these awards each year. All such awards of this type are highly competitive based upon scholarship and potential to succeed in graduate study. Application for these awards should be made by February 1 preceding the academic year for which the award is desired. Application forms and information about the award may be had by contacting the department to which one has been admitted or is seeking admission.

The stipend for a fellowship is \$305 per month, or \$3,355 for eleven months; for doctoral degree students the stipend is \$330 per month, or \$3,630 for eleven months. While on fellowships, students shall not hold other appointments in the University, nor shall they hold jobs outside the University, since the purpose of the fellowship is to provide students with a source of income which will enable them to work full time at graduate studies rather than work part time at a job and part time at studies. There may be a training assignment if this has been outlined at the time of the appointment.

Individual departments often are able to provide traineeships. The Graduate School administers a limited number of such traineeships and plans to increase the number if at all possible. Information about these awards should be directed to the department to which one has been admitted or is seeking admission.

Dissertation Research Awards

Dissertation research awards are designed for superior students who are in the dissertation preparation stage of their graduate education. Selection is based upon Graduate School-wide competition primarily based on the students academic research and quality of the dissertation prospectus. Students who will have started their dissertations by the end of the fall semester (advanced to candidacy, completed preliminary examinations, and completed most of their coursework and research tools) may apply for the award during the preceding spring semester. The application should be submitted by February 1. The award is for up to a maximum of 11 months at a monthly rate of \$396.

Students holding a dissertation research award are expected to devote full-time to the approved research project as determined by their department. Normally a student should be enrolled for dissertation hours. The student holding such an award is expected to resign the award at the time the dissertation is submitted to the Graduate School if this comes prior to three weeks before the end of the time period for the award.

Graduate Dean's Fellowships

Several special fellowships entitled graduate dean's fellowships are offered annually to students who show promise of success in graduate studies even though their previous academic achievements may have been hindered because they are members of a minority group, because of their socioeconomic status, or because of their sex. The awards are usually made to students who are well qualified by the usual indicators of promise for graduate work such as undergraduate grade-point averages and GRE or MAT scores, but whose status in one of the categories named above has meant that their records are not impressive enough for them to receive fellowships in the regular fellowship competition with the entire graduate student body of Southern Illinois University at Carbondale. Application should be made through the chairperson of the department in which the student is enrolled.

Stipend rates and related regulations are the same as for the regular graduate fellowships. There is no service requirement other than those activities which are required by departments of all students regardless of the source of their support.

Tuition Scholarships

A limited number of tuition scholarships are awarded to graduate students by the Student Work and Financial Assistance Office on the basis of scholarship. The award is for remission of tuition; fees must be paid. The tuition scholarship is normally awarded for two consecutive semesters (one academic year).

To be eligible the student must be admitted to the Graduate School and to a department, and the student may not hold another University appointment which provides a tuition waiver. Tuition scholarship recipients must enroll for a minimum of eight hours each semester. There is no service requirement other than the duties required by a department of all students regardless of their source of support.

Application forms are available in the Student Work and Financial Assistance Office. Completed applications are forwarded to the Graduate School for recommendations and returned to the Student Work and Financial Assistance Office for final consideration. Completed application forms, including an ACT Family Financial Statement, should be in the Student Work and Financial Assistance Office no later than April 1 preceding the year for which the tuition scholarship is needed.

Student Work and Financial Assistance

Other forms of financial assistance available through the Student Work and Financial Assistance Office include part-time employment on and off campus, cooperative work-study programs, summer employment, and student loan funds.

External Support for Graduate Study

Fellowships, grants-in-aid, scholarships, and other similar awards for the support of graduate students are available from many sources outside the University. Students are encouraged to apply for such awards. Information concerning appropriate external sources of support may be obtained from the Graduate School or from department chairpersons or directors of graduate studies of the student's major department.

Faculty Appointments

No student in a graduate degree program shall be appointed to any full-time faculty position in the department (or equivalent unit) while enrolled in the unit as a student, with the sole exception that a student who has already been admitted to candidacy for the Ph.D. degree may be granted a term appointment as an instructor in the unit while so enrolled. Such a term appointment shall not be renewable beyond a period of one year.

Graduate Assistant Appointees—Tuition Waiver

A graduate student who holds a graduate assistant appointment of at least one-quarter of full time and who is appointed for the full length of an academic term (semester or full-length summer session) is eligible for a waiver of tuition each academic term the appointment is held. If a student is appointed for less than a full academic term on a fiscal pay basis, said student is not eligible for a tuition waiver for that academic term.

A student who holds an appointment for the full academic term but resigns before the end of that term, and who continues to be registered for courses, shall be liable for the full tuition for the term.

A graduate student who has held an appointment, requiring service to the University of at least 25 per cent of full time, for the full length of each of two

consecutive semesters will be eligible for a waiver of tuition for the summer session immediately following the two consecutive semesters of service. In no case shall the additional term of tuition waiver be granted before the two consecutive semesters of service have been completed.

This additional term of tuition waiver shall not apply to nonservice appointments or to graduate fellowships, or graduate dean's fellowships.

Regulations regarding tuition waivers for traineeships depend upon the conditions established in relationship to each traineeship.

Tuition and Fees

Tuition and fees charged students are established by the Board of Trustees and are subject to change whenever conditions necessitate. All assessments are on a per-hour basis, with 12 hours considered full time. Students will be assessed the following tuition and fees each term:

GRADUATE STUDENT TUITION AND FEE SCHEDULE						
Illinois Residents				Non-Illinois Residents		
Semester Hours Enrolled	Tuition	Student Fees	Total	Tuition	Student Fees	Total
1	\$ 22.00	\$ 9.09	\$ 31.09	\$ 66.00	\$ 9.09	\$ 75.08
2	44.00	12.17	56.17	132.00	12.17	144.17
3	66.00	17.50	83.50	198.00	17.50	215.50
4	88.00	23.00	111.00	264.00	23.00	287.00
5	110.00	28.50	138.50	330.00	28.50	358.50
6	132.00	74.00	206.00	396.00	74.00	470.00
7	154.00	79.50	233.50	462.00	79.50	544.50
8	176.00	85.00	261.00	528.00	85.00	613.00
9	198.00	90.50	288.50	594.00	90.50	682.50
10	220.00	96.00	316.00	660.00	96.00	756.00
11	242.00	101.50	343.50	726.00	101.50	827.50
12 or more	262.00	107.00	369.00	786.00	107.00	893.00

The fees which have been established by the Board of Trustees are payable by all students unless they are specifically exempted by the Board of Trustees. All fees are considered to be institutional in nature and require payment regardless of whether or not the student receives direct benefits or is in a location which permits access to such benefits.

Student fees include:

Student Center Fee. Provides funds for the operation of the Student Center.

Student Activity Fee. Provides funding for student organizations and activities on campus.

Athletic Fee. Provides partial funding for the university intercollegiate athletic program.

Student Welfare and Recreation Fund (SWRF) Fee. Provides funding for construction and operation of physical facilities for student recreation and operation of recreational and intramural programs.

Student Medical Benefit Fee. Assessed to students enrolling for 6 or more semester hours and provides funding for a comprehensive student health program including emergency service; hospitalization; specialty, primary, intermediate, or infirmary care; and prevention program. A student who pays this \$40.00 fee is entitled to full medical benefits at the Health Service. One who has comparable coverage may seek a refund within the first two weeks of each semester by contacting the administrative director of the Health Service. Similarly, a refund is authorized for those students precluded from use of the student health program by unusual or extreme geographic considerations.

Students' Attorney Program Fee. Provides funding for a legal service program. Students will pay \$1 as a part of their student fees. Students who do not wish to participate in the program may seek a refund of the \$1 by contacting the Office of Admissions and Records by the end of the second week of the semester. Students who receive refunds are not eligible for any benefits of the program.

Microfilming Fee (Doctoral Dissertation). There is a fee of \$31.00 required of all doctoral students at the time the dissertation is submitted for approval. If copyright is desired, an additional fee of \$20.00 is required.

Additional Fee Information:

1. Students should refer to the Schedule of Classes for specific fee information.
2. Permanent full-time or permanent part-time employees may be eligible for waiver of tuition and waiver of a portion of the student fees. (Graduate Assistants are not eligible for a waiver of student fees.) Approval by the department head and the director of the Personnel Office must be given prior to enrolling for courses. Employees who are approved pay only the Students Center fee and the Students' Attorney Program Fee.
3. Students taking courses in extension or at approved Residence Centers are required to pay tuition as listed in the table above but do not pay student fees.
4. In addition to the above fees, there is a graduation fee. For further information contact the Office of Admissions and Records. When submitting their dissertations, doctoral students are required to pay a \$31.00 fee to cover the cost of publication of the dissertation abstract and microfilming the dissertation.
5. Students holding valid state scholarships are exempt from the above tuition and fees to the extent provided by the terms of the specific scholarship held. An Illinois State Scholarship may cover all tuition and student fees or the scholarship may be a partial award. Also, honorary scholarships, which have no monetary value, may be awarded. An Illinois State Teacher Education Scholarship, an Illinois Military Scholarship, or an Illinois General Assembly Scholarship exempts the student from paying the tuition, the student activity fee, and the graduation fee. The Illinois Scholarship for Dependents of Prisoners of War and the Illinois Bilingual Scholarship exempts the student from paying tuition and all mandatory non-fundable fees.
6. Adult education course fees are computed on the basis of approximately sixty cents per contact hour.
7. Other charges which students may incur are those for departmental field trips, library fines, and excess breakage. Also, students taking a course involving use of materials, as distinct from equipment, will ordinarily pay for such materials.
8. Students registering for courses on an audit basis pay the same tuition and fees as though they were registering for the courses for credit.
9. Out-of-state students will find the official University regulations governing

determination of residency status for assessment of tuition later in this chapter.

- Students enrolled in public service courses only pay tuition and \$3.00 per semester hour fee divided equally between the Student Center and the Student Medical Benefit fund.

Payment and Refunding of Tuition and Fees

Tuition and fees are payable each semester during the academic year. Students who register in advance receive a tuition and fee statement and may pay either by mail or in person at the Bursar's Office, by the deadline date, in accordance with instructions accompanying the tuition and fee statement. Otherwise their advance registration is cancelled and they must register again later. Students who register at the start of a semester must pay tuition and fees at the time of registration.

Students who process a program change which places them in a different tuition and fee category than the one for which they originally registered will be billed additional tuition and fees when appropriate. If the change places them in a smaller tuition and fee category and if they have processed the program change within the first three weeks of the semester, they should make application for a refund at the Office of Admissions and Records. Mail requests for a refund will be honored.

A refund of tuition and fees will be made to students who officially withdraw from school by the specific withdrawal deadlines.

DEADLINES FOR WITHDRAWING FROM THE UNIVERSITY TO RECEIVE A REFUND

If Classes Meet for	Deadline for Withdrawal to Receive Refund
13-16 weeks	3rd week
9-12 weeks	2nd week
7 or 8 weeks	2nd week
4-6 weeks	1st week
2 or 3 weeks	1st week
less than 2 weeks	2nd day

If students withdraw in person, they will receive an immediate cash refund. If they withdraw by mail, they will receive a refund check in approximately four weeks after the withdrawal has been received by the Office of Admissions and Records. No refunding of tuition and fees is made for a withdrawal occurring after the deadlines, except as described in the next paragraph.

Special consideration is extended to individuals who leave school for extended military service (6 months or longer). Students will be refunded full tuition and fees paid if they enter military service during the first five weeks of school. If students withdraw during the sixth through tenth weeks of school, they will be refunded half of the paid tuition and fees, and they will receive one-half credit without letter grades for the courses in which they were receiving a passing grade at the time of withdrawal. When the withdrawal occurs after the tenth week, students will receive no refund, but will receive both grades and credit hours for the courses in which they are passing. In all instances, a copy of the military orders or a letter from the commanding officer is required for verification of impending military service. To be eligible for these benefits students must remain in school to within ten days of their military reporting date.

DEFERMENT OF TUITION AND FEES

Special fee deferments are available to students who (1) can demonstrate financial need, (2) meet minimal requirements, and (3) can provide written verification of the ability to pay. Information on fee deferments is publicized each term in the Student Relations Office, the Office of Admissions and Records, Bursar's Office, Student Work and Financial Assistance Office, and the *Daily Egyptian*. Guidelines

may vary from term to term and year to year and students are advised to seek out the accurate information rather than assume they qualify for a deferment.

Students applying for a fee deferment must complete registration to the point of receipt of a fee statement. Applicants must be full-time students as defined by the Office of Admissions and Records and the fee statement must bear a minimum balance of \$65. The fee statement and written verification from the source of funds to be used to pay tuition and fees must be presented to the Student Relations Office to obtain an application. Applications are processed one week prior to the first week of classes. Recipients of fee deferments will not be allowed to register for any future semester until payment is made. Additional information on deferments is available in the Student Relations Office. Phone or mail requests for deferments will not be accepted.

If approval for a deferment is granted, tuition and fees will be placed on a special fee code for the term and the student will be obligated to pay by the approved deferred date. Failure to pay deferred fees by this date does not cancel one's registration nor remove the obligation to pay the deferred fees even if the student withdraws from school or discontinues attendance. Failure to pay deferred fees will result in withholding of permission to register for succeeding terms and withholding of transcripts.

Determination of Residency Status

The following is a direct quotation from the Board of Trustees' "Regulations Governing the Determination of Residency Status for Admission and Assessment of Student Tuition."

For the purpose of these regulations an *adult* is considered to be a student eighteen years of age or over; a *minor* student is a student under eighteen years of age. The words *he* or *his* also apply to a female unless otherwise stated or clearly indicated. The term *the State* means the State of Illinois. Except for those exceptions clearly indicated in these regulations, in all cases where records establish that the person does not meet the requirements for Resident status as defined in these regulations the nonresident status shall be assigned.

Evidence for determination of residence status of each applicant for admission to the University shall be submitted to the Director of Admissions at the time of application for admission. A student may be reclassified at any time by the University upon the basis of additional or changed information. However, if the University has erroneously classified the student as a Resident, the change in tuition shall be applicable beginning with the term following the reclassification; if the University has erroneously classified the student as a nonresident, the change in tuition shall be applicable to the term in which the reclassification occurs, provided the student has filed a written request for review in accordance with these regulations. If the University has classified a student as a Resident based on false or falsified documents, the reclassification to nonresident status shall be retroactive to the first term during which residency status was based on the false or falsified documents.

ADULT STUDENT

An adult, to be considered a Resident, must have been a bona fide resident of the State for a period of at least three consecutive months immediately preceding the beginning of any term for which he registers at the University, and must continue to maintain a bona fide residency in the State, except that an adult student whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident student.

MINOR STUDENT

The residence of a minor shall be considered to be, and to change with and follow:

- a. That of his parents, if they are living together, or the living parent, if one is dead; or
- b. If the parents are separated or divorced, that of the parent to whom the custody of the person has been awarded by court decree or order, or, in the absence of court decree or order, that of the parent with which the person has continuously resided for a period of at least three consecutive months immediately preceding his registration at the University; or
- c. That of the adoptive parents, if the person has been legally adopted and, in the event the adoptive parents become divorced or separated, that of the adoptive parent whose residence would govern under the foregoing rules if that parent had been a natural parent; or
- d. That of the legally appointed guardian of the person; or
- e. That of the *natural* guardian, such as a grandparent, adult brother or adult sister, adult uncle or aunt, or other adult relative with whom the person has resided and by whom he has been supported for a period of at least three consecutive months immediately preceding his registration at the University for any term, if the person's parents are dead or have abandoned him and if no legal guardian of the person has been appointed and qualified.

PARENT OR GUARDIAN

No parent or legal or natural guardian will be considered a resident of the State unless he (a) maintains a bona fide and permanent place of abode within the State, and (b) lives, except when temporarily absent from the State with no intention of changing his legal residence to some other State or country, within the State.

EMANCIPATED MINOR

If a minor has been emancipated, is completely self-supporting, and actually resides in the State, he shall be considered to be a Resident even though his parents or guardian may reside outside the State. An emancipated minor who is completely self-supporting shall be considered *to actually reside in the State of Illinois* if he has maintained a dwelling place within the State uninterruptedly for a period of at least three consecutive months immediately preceding the beginning of any term for which he registers at the University. Marriage or active military service shall be regarded as effecting the emancipation of minors, whether male or female, for the purposes of this regulation. An emancipated minor whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident student.

MARRIED STUDENT

A nonresident student, whether male or female, or a minor or adult, or a citizen or noncitizen of the United States, who is married to a resident of the State, may be classified as a Resident so long as he continues to reside in the State; however, a spouse through which a student claims residency must demonstrate his or her own residency in compliance with the requirements applicable to students seeking Resident status.

PERSONS WITHOUT UNITED STATES CITIZENSHIP

A person who is not a citizen of the United States of America, to be considered a Resident, must have permanent resident status with the United States Immigra-

tion and Naturalization Service and must also meet and comply with all of the other applicable requirements of these regulations to establish Resident status.

ARMED FORCES PERSONNEL

A person who is actively serving in one of the Armed Forces of the United States and who is stationed and present in the State in connection with that service and submits evidence of such service and station, shall be treated as a Resident as long as the person remains stationed and present in Illinois. If the spouse or dependent children of such member of the Armed Forces also live in the State, similar treatment shall be granted to them.

A person who is actively serving in one of the Armed Forces of the United States and who is stationed outside the State may be considered a Resident only if he was a resident of the State at the time he entered military service.

A person who is separated from active military service will be considered a Resident of Illinois immediately upon separation providing he: (a) was a resident of the State at the time he entered military service, (b) became treated as a Resident while in the military by attending school at Southern Illinois University while stationed within the State, or (c) has resided within the State for a period of three months after his separation.

STATE AND FEDERAL PENITENTIARY

A person who is incarcerated in a State or Federal place of detention within the State of Illinois will be treated as a Resident for tuition assessment purposes as long as he remains in that place of detention. If bona fide residence is established in Illinois upon release from detention, the duration of residence shall be deemed to include the prior period of detention.

MINOR CHILDREN OF PARENTS TRANSFERRED OUTSIDE THE UNITED STATES

The minor children of persons who have resided in the State for at least three consecutive months immediately prior to a transfer by their employers to some location outside the United States shall be considered Residents. However, this shall apply only when the minor children of such parents enroll in the University within five years from the time their parents are transferred by their employer to some location outside the United States.

DEPENDENTS OF UNIVERSITY EMPLOYEES

The spouses and dependent children of all staff members (academic, administrative, non-academic) on appointment with the University shall be considered as Resident students for purposes of tuition assessments.

DEFINITION OF TERMINOLOGY

To the extent that the terms *bona fide residence*, *independent*, *dependent*, and *emancipation* are not defined in these regulations, definitions shall be determined by according due consideration to all of the facts pertinent and material to the question and to the applicable laws and court decisions of the State of Illinois.

A bona fide residence is a domicile of an individual which is his true, fixed, and permanent home and place of habitation. It is the place to which, whenever he is absent, he has the intention of returning. Criteria to determine this intention include but are not limited to year around residence, voter registration, place of filing tax returns (home state indicated on federal tax return for purposes of revenue sharing), property ownership, driver's license, car registration, vacations, and employment.

PROCEDURE FOR REVIEW OF RESIDENCY STATUS OR TUITION ASSESSMENT

A student who takes exception to the residency status assigned or tuition assessed

shall pay the tuition assessed but may file a claim in writing to the appropriate official for a reconsideration of residency status and an adjustment of the tuition assessed. The written claim must be filed within 30 school days from the date of assessment of tuition or the date designated in the official University calendar as that upon which instruction begins for the academic period for which the tuition is payable, whichever is later, or the student loses all rights to a change of status and adjustment of the tuition assessed for the term in question. If the student is dissatisfied with the ruling in response to the written claim made within said period, he may appeal the ruling to the Legal Counsel by filing with the appropriate official within twenty days of the notice of the ruling a written request.

Graduate Degrees Offered

MASTER'S DEGREES

Master's degrees are available in the approved programs listed below:

Abbreviations: Master of Arts, MA; Master of Business Administration, MBA; Master of Fine Arts, MFA; Master of Music, MM; Master of Music Education, MMed; Master of Public Affairs, MPA; Master of Science, MS; Master of Science in Education, MS in Ed.

Administration of Justice	MS	Health Education	MS in Ed
Agricultural Industries	MS	Higher Education	MS in Ed
Animal Industries	MS	History	MA
Anthropology	MA	Home Economics	
Art	MFA	Education	MS in Ed
Behavior Modification	MA, MS	Journalism	MA, MS
Biological Sciences	MS	Latin American Studies	MA
Botany	MA, MS	Linguistics	MA
Business Administration	MBA	Mathematics	MA, MS
Business Education	MS in Ed	Microbiology	MA
Chemistry	MS	Mining Engineering	MS
Cinema and Photography	MFA	Music	MM, MMed
Community Development	MS	Occupational	
Computer Science	MS	Education	MS, MS in Ed
Early Childhood		Philosophy	MA
Education	MS in Ed	Physical Education	MS in Ed
Economics	MA, MS	Physics	MA, MS
Educational		Physiology	MS
Administration	MS in Ed	Plant and Soil Science	MS
Educational Media	MS in Ed	Political Science	MA
Elementary Education	MS in Ed	Psychology	MA, MS
Engineering	MS	Public Affairs	MPA
Engineering Biophysics	MS	Public Visual Communications	MA
English	MA	Recreation	MS in Ed
English as a Foreign Language	MA	Rehabilitation Administration	
Foreign Languages		and Services	MA, MS
and Literatures		Rehabilitation Counseling	MA, MS
French	MA	Secondary Education	MS in Ed
German	MA	Sociology	MA, MS
Spanish	MA	Special Education	MS in Ed
Forestry	MS	Speech Communication	MA, MS
Geography	MA, MS	Speech Pathology and Audiology	MS
Geology	MS	Theater	MA, MFA
Guidance and Educational		Zoology	MA, MS
Psychology	MS in Ed		

SPECIALIST DEGREE

Specialist degree programs are available in the fields listed below.

Educational Administration

Guidance and Educational Psychology

Elementary Education

Secondary Education

DOCTOR OF PHILOSOPHY DEGREE

Doctor of Philosophy degree programs are available in the fields listed below.

Anthropology

Historical Studies

Political Science

Botany

Journalism

Psychology

Chemistry

Mathematics

Sociology

Economics

Microbiology

Speech/Communication/Theater

Education

Molecular Science

Speech Pathology and Audiology

English

Philosophy

Zoology

Geography

Physiology

Graduate Advisers

Administration of Justice: Lawrence Bennett

Agricultural Industries: Lyle Solverson

Animal Industries: Harold H. Hodson, Jr.

Anthropology: Bruce MacLachlan, and M. Lionel Bender

Art: Michael O. Onken, and Milton F. Sullivan

Behavioral Modification: Anthony Cuvo

Biological Sciences: Edwin Galbreath

Botany: Raymond Stotler, and Robert H. Mohlenbrock

Business Administration: R. Clifton Andersen

Business Education: Marcia Anderson

Chemistry & Biochemistry: James Tyrrell

Cinema and Photography: Peter J. Bukalski

Community Development: Ira Ehrlich

Computer Science: Kenneth Danhof, and A. M. Mark

Early Childhood Education: Margaret Matthias

Economics: Donald R. Adams

Education (Ph.D.): Donald L. Beggs

Educational Leadership: Dean Stuck, and Harry G. Miller

Educational Media: Doris Dale

Elementary Education: Morris Lamb, and Fred Sloan

Engineering:

Electrical Science and Systems Engr.: J. G. Smith

Engineering Mechanics and Materials: Philip K. Davis

Thermal and Environmental Engineering: J. W. Chen

Engineering Biophysics: Harold M. Kaplan

English: Paul Hurley

English as a Foreign Language: Patricia Carrell

Foreign Languages and Literatures:

French: David Gobert, and Eugene Timpe

German: Helmet Liedloff, and Eugene Timpe

Spanish: Warren Meinhardt, and Eugene Timpe

Forestry: Howard A. Spalt

Geography: David M. Sharpe, and Stanley Lieber

Geology: Rex Cole, Dale Ritter, and Russell Dutcher

Guidance and Educational Psychology: Ernest L. Lewis

Health Education: Donald N. Boydston

Higher Education: John E. King, Roland Keene, Donald Tolle, Jack Graham, and Arthur Casebeer

History: Betty Fladeland

Historical Studies (Ph.D.): Betty Fladeland

Home Economics: Michael Zunich, Wayne L. St. John, Frank Konishi, and Karen Craig

Home Economics Education: Anna Carol Fults

Journalism: Robert E. Trager

Latin American Studies: William Garner

Linguistics: Patricia Carrell
Mathematics: Carl Langenhop
Microbiology: Maurice Ogur
Mining Engineering: Atmesh Sinha
Molecular Science: Gerard V. Smith
Music: Robert E. Mueller
Occupational Education: Bill G. Gooch, James A. Sullivan, and John Erickson
Philosophy: David S. Clarke
Physical Education: James J. Wilkinson
Physics: Frank Sanders
Physiology: Matthew Freund
Plant and Soil Science: Gerald D. Coorts
Political Science: David R. Derge
Psychology: David Ehrenfreund, and Janet Rafferty
Public Affairs: Charles Goodsell
Public Visual Communications: Thomas O. Olson
Recreation: Owen R. Smith
Rehabilitation Administration and Services: Jerome R. Lorenz
Rehabilitation Counseling: Brockman Schumacher
Secondary Education: Fred A. Sloan, and Arthur Aikman
Sociology: Jerry Gaston
Special Education: Howard Morgan
Speech Communication: Thomas Pace
Speech Pathology and Audiology: Gene J. Brutten
Theater: Christian H. Moe
Zoology: W. D. Klimstra, and William M. Lewis

Degree Requirements

The following section describes Graduate School regulations unique to the master's, the specialist, and the doctoral degrees. For Graduate School procedures and regulations applicable to all graduate students, regardless of degree program, the student should consult the section in this chapter titled General Regulations and Procedures. For information about specific degree programs, the student should consult the appropriate section in Chapter 2.

MASTER'S DEGREE PROGRAM

Admission

In order to be admitted to a degree program, an applicant must meet Graduate School admission requirements and be approved by the department or degree program concerned.

The Graduate School requires that the applicant hold a bachelor's degree from an accredited institution or have completed all undergraduate degree requirements prior to the beginning of classes for the term for which admission is sought.* The applicant must have earned a grade point average (GPA) of 2.40 or better (A = 4.00) on all undergraduate work completed prior to receipt of the bachelor's degree.

If the applicant has completed 12 or more semester hours of graduate work, a GPA of 3.00 or better must have been earned on all graduate work completed in order to qualify for admission to a degree program, regardless of the undergraduate GPA. An applicant may not be admitted to a degree program with a graduate GPA of less than 3.00. The applicant may be admitted as an unclassified student, and later apply to a degree program when 12 or more semester hours of graduate work at SIU at Carbondale have been completed with a grade point average of 3.00 or better in courses for which grades of A, B, C, D, E, ABS, or WE have been assigned.

The faculty of a degree-program unit may add its own grade-point average

* Applicants to master's degree level study may begin the admissions process when they need no more than 32 semester hours beyond the credit shown on their transcripts at the time of application to complete all requirements for the bachelor's degree.

requirements and other requirements for admission to that particular program. The student should consult the description of the appropriate program in Chapter 2 for specific requirements.

An applicant who meets Graduate School requirements but is disapproved by the degree program to which application was made may be admitted as an unclassified student or may apply to another degree program.

General Requirements

Graduate credit earned in graduate courses for which the student has received grades of *A*, *B*, *C*, or *S*, and only such credit, is acceptable for master's degree programs. At least 21 semester hours of graduate credit with grades of *A*, *B*, or *C* must be earned in courses graded *A* through *E*. An overall grade point average of at least 3.00 in all graduate work included in the master's degree program is required before that degree can be awarded.

The Graduate School requires a minimum of 30 semester hours of acceptable graduate credit for the master's degree. At least half of the credit applied toward fulfillment of master's degree requirements must be earned in courses offered by SIU at Carbondale, and at least 9 hours must be earned at SIU at Carbondale after admission to the degree program recommending the awarding of the degree. Fifteen or more hours must be earned in courses numbered 500 or above. Since certain degree programs require more than 30 hours, the student should consult the description of the appropriate program in Chapter 2 for specific requirements.

Each candidate for a master's degree is required to pass a comprehensive examination covering all of his graduate work, including the thesis. This examination may be written or oral, or both, as determined by the student's advisory committee.

Time Limits

Only credit earned within a six-year period preceding completion of requirements for the degree, whether at Southern Illinois University or elsewhere, will be counted toward the degree.

Thesis

Each candidate for a master's degree shall write a thesis except where a graduate program has been approved to provide some other arrangement, such as a research paper. The thesis shall be supervised by a committee of at least three members of the graduate faculty and may be counted for not more than six nor less than three semester hours of credit.

Two copies of the approved thesis must be presented to the Graduate School at least three weeks prior to the date of graduation, to be bound and shelved in the library. For nonthesis programs, a research paper should show evidence of the student's knowledge of research techniques and should be based on a special project or specific courses as may be recommended by the advisory committee. One copy of the research paper must be filed in the Graduate School at least three weeks prior to the date of graduation.

Double Major for a Master's Degree

A student may earn a double major for a master's degree if such a program of graduate study is commensurate with student's vocational and professional goals.

REQUIREMENTS

1. The student must have been admitted to one master's degree program.
2. Each unit in which the student wishes to earn a major must have an approved master's degree program.
3. The chairman of each unit must endorse the proposed program.
4. The proposed program must specify the title of the degree which is to be awarded.
5. The proposed program must be approved by the graduate dean.

6. At least 18 semester hours must be earned for each major, and one-half of the coursework for each major must be in courses numbered 500 or above.
7. The minimum number of hours required for the double major must total 60 per cent of the sum of the total required for the two majors individually.
8. The thesis may be counted for not more than a combined total of 6 nor less than 3 semester hours of credit.

PROCEDURE

A student interested in pursuing a double major for a master's degree must submit to the graduate dean a written statement of justification for the proposed program and a program of study endorsed by the chairman of both of the cooperating units. The forms for submitting a double major program of study are available in the Graduate School office.

Second Master's Degree

A student may earn a second master's degree if the second degree is offered by an academic unit different from that of the first master's degree. None of the hours used towards any previous degree will be allowed to count as a part of the total number of hours toward a second master's, and all regulations shall apply to the second master's degree exactly as they would if this were a first master's degree.

Summary of Master's Degree Requirements

At least 30 hours of graduate credit, or the minimum number of hours required by the specific degree program.

Grade point average of at least 3.00.

At least 15 hours in courses numbered 500 or above.

At least 9 hours after admission to the degree program.

At least 21 hours of graduate course work graded A, B, or C.

At least one-half of the required number of hours earned at SIU at Carbondale.

Courses to be applied to the degree taken within six years of conferring the degree.

Transfer credit taken at another institution or as an unclassified student approved by the dean of the Graduate School.

Two copies of an approved thesis or one copy of an approved research paper turned in to the Graduate School (not applicable for MBA program).

Comprehensive or oral examination.

Submission of departmental clearance form.

SIXTH-YEAR SPECIALIST DEGREE PROGRAM

The sixth-year specialist degree program is for a qualified student who wishes to pursue a specialization in an educational field. The student must hold a master's degree or its equivalent as determined by the specific department. Sixth-year courses of study are offered in the professional education areas of educational administration, elementary education, guidance, and secondary education.

Admission

Students seeking admission to the sixth-year specialist degree program follow the same procedures that apply for admission to other graduate programs. Admission to the sixth-year specialist degree program requires a grade point average of 3.25 (A=4.00) for all previous graduate work. Departments may establish a higher scholastic requirement for admission and may use other selective criteria appropriate to the field of specialization. The student's previous work shall have provided a proper base of general and special preparation for the sixth-year studies; if this is lacking, additional work must be taken to establish this base. Two years of experience relevant to the specialized field are required.

An advisory committee of three members for each candidate shall be appointed

by the dean of the Graduate School upon the recommendation of the chairman of the respective department.

General Requirements

A minimum of 30 semester hours of work beyond the master's degree or its equivalent must be completed with a minimum grade point average of 3.25. The student's work must be planned early by the student with the advisory committee and must clearly lead toward the specialization sought. No more than 15 hours earned for work done on campus at another university (for this purpose Southern Illinois University at Edwardsville is considered to be another university) or in extension from Southern Illinois University at Carbondale, or any combination of the two, may be counted toward the degree.

A field study is required of each candidate for the specialist degree. A written report of the field study is to be submitted to the student's advisory committee before a final oral examination. After the advisory committee approves the field study report, one copy will be forwarded to the Graduate School to be placed in Morris Library.

All credit must have been earned within seven years prior to completion of the program.

The residency requirement is fulfilled by enrollment for at least eight semester hours in a single semester or at least six semester hours in each of two terms (semesters or summer session of at least eight weeks duration).

DOCTOR OF PHILOSOPHY DEGREE PROGRAM

Admission

Admission to a Ph.D. program in the Graduate School requires a master's degree or its equivalent, a grade point average in graduate work of at least 3.25, and acceptance by the academic unit offering the Ph.D. program.* The graduate dean informs each student of any conditions for admission imposed by the Graduate School or by the academic unit.

General Requirements

The Ph.D. degree is awarded for high accomplishment in a particular discipline or a recognized interdisciplinary area, as measured by the student's ability to pass the preliminary examination for admission to candidacy, meet the research tool requirement of the program, perform a piece of original research, present the results in proper form in a dissertation, and defend the dissertation before a faculty committee. There is no Graduate School requirement that a certain number of semester hours be taken for the Ph.D. Some degree programs do have requirements for the student of a certain number of semester hours. Therefore, the acceptability of work done at other institutions as a part of a Ph.D. program is at the discretion of the department.

No Ph.D. level residence-credit program may be established off campus, although coursework involved in a Ph.D. program may be taken at an off-campus residence center provided that the full, normal requirement of residence on campus at Southern Illinois University at Carbondale is met under the usual Graduate School standards for Ph.D. programs.

Preliminary Examination

The student will generally prepare for this examination through independent study and coursework, as advised by the faculty of the Ph.D. program. The exami-

* An applicant to Ph.D. level study may begin the admission process when such applicant needs no more than 16 additional semester hours (24 quarter hours) beyond the credits shown on the transcript at the time of application to complete all requirements for the master's degree.

nation is given to determine the breadth and depth of the student's knowledge within the discipline. The particular form and content of the examination are determined by the faculty of each of the doctoral programs. The student will be permitted to take the preliminary examination at the discretion of the department, after having completed two years of full-time study or its equivalent beyond the baccalaureate.

Research Tool Requirement

The Ph.D. at Southern Illinois University at Carbondale is a research-oriented degree. The research tool requirement is intended to be an integral part of the student's program. Since research materials, problems, and techniques vary from discipline to discipline, the details of the research tool requirement are determined by the faculty of each of the doctoral programs.

Residency

The residency requirement for the Ph.D. must be fulfilled after admission to the Ph.D. program and before formal admission to Ph.D. candidacy. The residency requirement is satisfied by completion of 24 semester hours of credit on campus as a Ph.D. student within a period not to exceed four calendar years. No more than six hours of deferred dissertation credit may be applied toward fulfillment of the 24 semester hours residency requirement. Credit earned in concentrated courses or workshops may apply toward fulfillment of the residency requirements if the student is concurrently registered for a course spanning the full term. No more than six semester hours of short course or workshop credit may be applied to the 24 semester hours residency requirement.

Admission to Candidacy

Admission to candidacy is granted by the dean of the Graduate School upon recommendation of the faculty responsible for the student's program, after the student has fulfilled the residency requirement for the Ph.D. degree, passed the preliminary examination and met the research tool requirement of the program. The Ph.D. degree may not be conferred less than six months after admission to candidacy, except upon approval of the dean of the Graduate School. The candidate must fulfill all requirements for the degree within a five-year period after admission to candidacy. If completion of requirements is delayed beyond five years, a student may be required to take another preliminary examination and be admitted to candidacy a second time.

Dissertation

After being admitted to candidacy, the student must complete a dissertation showing that the student is capable of independent research or other creative effort. The dissertation shall be supervised by a faculty committee which has been approved by the dean of the Graduate School. Unless the graduate dean has approved an exception requested by the student's academic unit this committee shall consist of five graduate faculty members, at least one of whom shall be from a graduate program outside the student's academic unit.

While such student is working on the dissertation, the student must register for the course numbered 600. The student is to devote at least one academic year of full-time work to complete the dissertation and will register for 24 semester hours of dissertation credit, for example, 12 hours for each of two terms.

The student must submit two copies of the dissertation acceptable to the Graduate School, along with an abstract of 600 words or less. All dissertations will be microfilmed. There is a fee of \$31.00 to cover the cost of publication of the abstract and microfilming of the dissertation. If copyright is desired, an additional fee of \$20.00 will be required. The microfilming agreement form and the survey

form of earned doctorates are completed in the Office of the Graduate School at the time the dissertation is submitted.

The abstract will be published in the current *Dissertation Abstracts International* and the dissertation will be cited in *American Doctoral Dissertations* and *Comprehensive Dissertation Index*. A copy of the microfilmed dissertation will be placed in the Library of Congress archives. This service assures the student that the dissertation will be available to other researchers at no further personal expense to the student.

If the student elects to use the copyright service, copyright will be obtained in the student's name. Publication rights, other than for reproduction in microform or from microform, are the student's to assign to any publisher at any time. In addition, arrangements can sometimes be made for University microfilms to publish a small edition of the dissertation.

Final Examination

There will be a final oral examination administered by the student's doctoral dissertation committee. The examination will cover the subject of the dissertation and other matters related to the discipline. Any member of the graduate faculty may attend the final oral examination and may participate in questioning and discussion, subject to reasonable limitations imposed by the chairman of the committee, but only members of the committee may vote or make recommendations concerning acceptance of the dissertation and final examination. A student will be recommended for the degree only if the members of the committee, with at most one exception, judge both the dissertation and the performance at the final oral examination to be satisfactory.

Interdisciplinary Doctor of Philosophy Programs

These guidelines provide for interdisciplinary Ph.D. programs for a limited number of students whose educational requirements can be met by existing resources but not exclusively by any one of the University's constituent units. Interdisciplinary Ph.D. programs will be instituted in response to the particular academic interest of individual students, not as programs of a permanent nature. The procedures and criteria given below govern the authorization and control of interdisciplinary Ph.D. programs.

1. After admission to an established doctoral program at Southern Illinois University at Carbondale and upon the recommendation of the chairman or adviser of that program, a student may apply for an interdisciplinary Ph.D. program to the dean of the Graduate School.
2. The dean of the Graduate School will apply the following criteria in deciding whether a program committee should be established to consider the proposed interdisciplinary Ph.D. program.
 - a. The requisite staff must be available.
 - b. The library holdings must be adequate without unreasonable additions.
 - c. The program must lie within the recognized disciplines or fields of study, at least one of which offers the Ph.D. program.
3. If the dean of the Graduate School is satisfied that the proposed program satisfies these criteria, the dean shall form a special program committee of five members, three of whom shall be from units offering the Ph.D.
4. If the committee approves the proposed program, a plan of study shall be developed that includes the following elements:
 - a. Fields or areas of study
 - b. Required courses
 - c. Languages or other research tool requirements
 - d. Dissertation subject
5. The program as approved by the committee and accepted for principal spon-

sorship by a unit with an approved Ph.D. program shall be submitted to the dean of the Graduate School. Upon final approval the student's program shall have the same binding effect upon the Graduate School as programs printed in the graduate catalog. The degree earned shall carry the title of the doctoral unit that has assumed principal sponsorship. The commencement program shall give specific indication that the degree is interdisciplinary and include a listing of those units that are substantively involved in addition to the principal sponsoring unit, as determined by the graduate dean.

6. When the committee has certified all the required performances, including the results of examinations, the committee shall be dissolved.

Summary of Ph.D. Degree Requirements

Completion of any specific courses required by the doctoral program.

Fulfillment of the residency requirement.

Completion of the research tool required by the doctoral program.

Passing of the preliminary examination.

Admission to candidacy.

Completion of an approved dissertation with 24 hours of dissertation credit.

Oral defense of dissertation.

Submission of two approved copies of the dissertation to the Graduate School.

Payment of \$31.00 microfilming fee.

Completion of microfilm agreement and survey of earned doctorates at the Graduate School office.

Degree conferred not less than six months nor more than five years after admission to candidacy.

Submission of departmental clearance form.

Other Types of Registration in Graduate Courses

UNCLASSIFIED STUDENTS (NON-DEGREE)

A person may apply for admission to the Graduate School as an unclassified student when the applicant does not seek a graduate degree or has applied too late to be admitted to a degree program for the term for which admission is sought.

If an unclassified student is admitted to a degree program at a later time, the director of that program may petition the graduate dean that graduate courses completed while the student was unclassified be applied toward fulfillment of degree requirements. The student will be subject to the rules and regulations of the Graduate School and the department concerned including the completion of at least 9 hours after being admitted to a degree program from unclassified status.

Unclassified students are not eligible for fellowships, assistantships, or tuition scholarships.

Regular Unclassified

A person who seeks admission as a regular unclassified graduate student must have been awarded a bachelor's or higher degree (see *Application for Graduate Study*). A student admitted as a regular unclassified student may enroll in graduate courses as long as the student meets retention standards of the Graduate School.

Late-Entry Unclassified

An applicant to a degree program who meets Graduate School admission standards but whose materials are received too late for processing may be granted late-entry, unclassified status for the term for which admission was originally sought. The application papers will continue to be processed for admission to a degree program

for the term following the one originally applied for. Whether or not work taken by a student who is unclassified because of late application will later count toward a degree will be decided by the Graduate School and the department concerned.

Temporary Unclassified

An applicant who wishes to enroll for one term only or who has applied for admission too late to furnish official transcript(s) required by the Graduate School may be admitted as a temporary unclassified student. The applicant must sign a special registration form affirming possession of a bachelor's degree. No transcript is required.

A student may register as a temporary unclassified student for one semester only. If the student wishes to enroll in graduate courses after this time period, the student must apply for and be admitted, either to a degree program or to regular unclassified status.

UNDERGRADUATE STUDENT REGISTRATION IN GRADUATE COURSES

Graduate Credit

An undergraduate student who wishes to register for a graduate course (400- or 500-level course) for graduate credit must file the standard application for admission to the Graduate School and submit to the graduate dean a request for graduate credit. (Appropriate forms are available in the Graduate School office.) If the student is academically eligible for admission to a degree program, the student will be allowed to register for graduate courses for graduate credit when within 12 semester hours of completing requirements for the bachelor's degree.

An undergraduate student who meets these qualifications will be allowed to take graduate courses for graduate credit for one semester or one summer term. If, at the end of the term, the student has not received the bachelor's degree, permission to enroll in graduate courses for graduate credit will be withdrawn until after the bachelor's degree has been conferred.

Undergraduate Credit for 500-Level Courses

Undergraduate students are permitted to register for 500-level courses for undergraduate credit only by special permission of the graduate dean. Such permission will be granted only to properly qualified students. The procedure for obtaining such permission is as follows: The chairperson of the department offering the course, in collaboration with the instructor who is teaching the section of the course in which the student desires to enroll, and in consultation also with other appropriate persons such as the director of graduate studies for the department, should write a letter to the graduate dean indicating their approval for the student to take a particular 500-level course for undergraduate credit.

Such a request should be made only for a truly superior student, and there should be a clear expectation that the student would perform above the median of graduate students in the course. The letter should therefore include some information on the student's academic work with particular attention to advanced and relevant courses in the major area. Appropriate grade point averages should be included. If the petition is granted, a letter will be sent from the graduate dean to the registrar, asking that the specified credit be accepted in the student's undergraduate program.

General Regulations and Procedures

The following section includes Graduate School procedures and regulations applicable to all graduate students regardless of degree classification. Requirements

unique to the master's, specialist, and Ph.D. degrees, are stated in the section in this chapter titled Degree Requirements. For information about specific degree programs the student should consult the appropriate section in Chapter 2. Requirements unique to the non-degree classifications are stated in the section in this chapter titled Unclassified Students (Non-degree).

APPLICATION FOR GRADUATE STUDY

A student should obtain application forms from the Graduate School and submit application directly to the Graduate School where it will be evaluated for compliance with Graduate School admission requirements. Some departments require a separate departmental application in addition to the Graduate School application. The applicant should consult the particular program description in Chapter 2 to determine if a separate departmental application is required. In such cases, the student should contact the department directly.

Transcripts

A student applying to a degree program must have the registrar of each college previously attended (except Southern Illinois University at Carbondale) send three official transcripts of the student record to the Graduate School. Students applying for unclassified (non-degree) status must have the registrar of the degree-granting institution send one official transcript indicating receipt of the bachelor's (or higher) degree to the Graduate School. Copies sent to a department are not acceptable. The recording of one or more college's grades upon the transcript of another college does not meet the requirements. No transcripts or other admission credentials will be returned or forwarded to other institutions. Only if these steps are taken and if the student seeks a degree will the application be forwarded to the academic unit in which the student indicates a desired major.

In accord with the Family Education Rights and Privacy Act of 1974, no non-Southern Illinois University person, firm or agency may have access to an applicant's or a student's credentials without written consent of the individual concerned. Graduate students shall be permitted to examine their own records upon request. Such requests should be made by the student to the dean of the Graduate School.

Requirements

The admission requirements of the Graduate School and the department must both be met before the student is admitted to a degree program, and both the Graduate School and the department may specify conditions. Several departments require additional materials such as test scores or letters of recommendation. These supporting materials should be sent directly to the applicant's major department. The student will be informed by the Graduate School of resultant admission status after this process has been completed.

Deadlines

In order to be fully admitted to a degree program at the beginning of the academic term, an applicant should see to it that all required admissions materials are submitted to the Graduate School no later than 30 days prior to the beginning of the term for which the applicant is seeking admission.

Admission is for the term indicated and a student who does not enroll in courses for that term will be required to update the application by notifying the Graduate School before being allowed to enroll in courses.

If the term for which the applicant is applying is more than two years after the term for which he was first admitted, a student applying to a degree program must have the registrar of all institutions previously attended furnish three official

transcripts to the Graduate School. An unclassified, non-degree student must have the registrar of the bachelor's degree-granting institution furnish one official transcript. If a student is applying to a degree program and has taken any coursework at another institution between the first admission and the first registration, the applicant must have the registrar of the appropriate institution(s) furnish three official transcripts of this work regardless of the amount of time elapsed.

Admission of Faculty Members

No one who holds a faculty appointment at any of the academic ranks—lecturer, instructor, assistant professor, associate professor, and professor—shall be admitted to a graduate degree program at any level, or be eligible to register for courses to be taken for graduate credit, in the graduate degree program in which the student holds the appointment. If a faculty member has been admitted to a graduate degree program in some unit other than the one in which such appointment exists, no member of the faculty of the unit in which the appointment is held may be a member of that colleague's thesis committee, graduate program committee, dissertation committee, or any other examining committee. (See also page 6.)

Admission of International Students

A student from abroad is subject to all requirements for admission established by the Graduate School. In addition, the applicant must complete special forms pertaining to the admission of international students. For these admission forms and for other information concerning international students, inquiries should be sent to the Graduate School, Southern Illinois University, Carbondale, Illinois 62901.

To allow ample time for visa and other departure procedures, the applicant should have an application and all supporting documents on file with the University no less than four months prior to the proposed entry date.

International students must be enrolled in a program leading to a graduate degree. They cannot be admitted as unclassified students.

If the above requirements are satisfactorily met and the student is admitted to a degree program, the applicant will be required to certify that personally adequate financial resources will be available to undertake and continue in a program of study.

Test of English as a Foreign Language (TOEFL). All foreign-born applicants not admitted under paragraph one under Academic Requirements listed below whose primary spoken language is not English must achieve a TOEFL score of 550. This test must have been taken no more than 12 months prior to the term for which the applicant is seeking admission.

Qualification for Assistantship with Teaching Duties. Every international student assigned a graduate assistantship with teaching duties must pass an oral examination conducted by the Center for English as a Second Language before undertaking classroom duties. A representative of the appointing department and of the Graduate School must participate in the examination.

Academic Requirements. If a foreign-born applicant has completed a four-year bachelor's degree program at an accredited institution in the United States of America, the applicant may be given the same consideration for admission to a graduate degree program as a United States citizen, in regard to both academic requirements and the use of English as a foreign language.

If a foreign-born applicant has completed the equivalent of a four-year baccalaureate degree in any other country, or at an unaccredited institution, such applicant must have an academic record equivalent to a 2.70 grade point average (A=4.00) for admission to a master's degree program.

The determination of the applicant's grade point average shall be the responsibility of the Graduate School.

Applicants for doctoral programs must meet the regular academic requirements as outlined on page 18.

ADVISEMENT

Each student admitted to a degree program must consult a graduate adviser in the designated major department before going to the graduate desk of the Office of Admissions and Records for registration. This adviser will assist the student in planning the total program and in choosing courses each term.

Unclassified nondegree students begin registration immediately at the graduate desk in the Office of Admissions and Records.

Responsibility for errors in program or in interpretation of regulations of the Graduate School and the University rests entirely upon the student. It is the students' responsibility to see that their records in the Graduate School office, in the Office of Admissions and Records, and with their respective major advisers are up-to-date and brought together well in advance of the time of graduation. The student cannot be approved for graduation unless these records are available at least six weeks in advance of the time of graduation.

REGISTRATION

Only those students who have been officially admitted by the Graduate School will be permitted to register. Students should register in person. There is no registration by mail.

During the first week of the term, the student must have the approval of the Graduate School to register late. Program changes after registration must be approved by the student's adviser and the dean of the Graduate School and may involve payment of a program change fee. In addition, after the first week of classes, registration or program changes involving adding a course must have the approval of the instructor of each course.

Information concerning registration dates and deadlines for the first time the student attends the University will be sent when the student is admitted to the Graduate School. Continuing students should consult the Schedule of Classes for each semester to find deadlines and dates for registration.

Withdrawal from Courses and from the University

Outlined below are the procedures to be followed by graduate students when withdrawing from courses and when withdrawing from the University (all courses for which registered).

DEADLINES FOR WITHDRAWING FROM THE UNIVERSITY OR FROM A COURSE

If Classes Meet for	Deadline for Withdrawal to Receive Refund	Deadline to Withdraw Without a Grade
13-16 weeks	3rd week	5th week
9-12 weeks	2nd week	4th week
7 or 8 weeks	2nd week	3rd week
4-6 weeks	1st week	2nd week
2 or 3 weeks	1st week	1st week
less than 2 weeks	2nd day	2nd day

COURSE WITHDRAWALS

Students officially withdraw from courses through the program change process.

This process starts with the academic adviser and is completed at the Registration Center. Official course withdrawals during the first five weeks in a semester result in no letter grade being assigned. Withdrawal deadlines for shorter sessions are printed in the appropriate Schedule of Classes, and students are subject to these printed deadlines. Thereafter, a *WP* (passing) or *WE* (failing) grade is assigned in keeping with the progress being made. For graduate students only, *W* grades may be given when no basis for evaluation has been established. Merely stopping attendance in courses without the processing of a program change will result in *ABS* grades being assigned. An *ABS* counts the same as an *E* or *WE* for scholastic purposes.

Students who are prevented, for reasons beyond their control, from processing program changes during the first five weeks of a semester and who later, during the semester, seek to do so with the request to have the program change backdated are referred to the dean of the Graduate School for approval or disapproval.

WITHDRAWAL FROM THE UNIVERSITY

Students who find it necessary to withdraw from the University after school has started and who are on campus should contact the Graduate School in person to initiate the withdrawal process. If they are unable to come to campus, they may write the Graduate School asking that it process a withdrawal.

Students who advance register, including the paying of tuition and fees, and who then find they cannot attend school must process an official withdrawal the same as do those who withdraw after school starts. In this case the process is the same as outlined in the paragraph above. Students who advance register but do not clear tuition and fees by the announced deadline date have their registrations cancelled by the University.

Students who seek to have a withdrawal from the University backdated from the date of actual processing are referred to the Graduate School for review and approval or disapproval prior to processing, provided grades have not yet been given.

Students seeking to withdraw from sessions already completed are referred to the dean of the Graduate School when the situation involves a possible change of grade, whether one course or all courses are involved. The dean forwards his recommendations via letter to the Office of Admissions and Records. The dean specifies the effective date of withdrawal which then serves as a basis for grade changes or other purposes involved.

Students who officially register for a session may not withdraw merely by the stopping of attendance. They need to process an official withdrawal form. Otherwise, grades of *ABS* will be given.

Refer to the section Payment and Refunding of Tuition and Fees in this chapter for information about the refunding of tuition and fees when withdrawing from the University. Refer to that section, also, relative to special considerations extended to students withdrawing from school for extended military service.

STUDENT COURSE LOADS

Maximum coursework for graduate students is 16 hours each semester; 12 hours is considered a normal load.

A graduate student must enroll in 400- and 500-level credit work to meet the above minima. Audit work will not qualify to meet the minimum load. However, audit work is calculated in determining a student's maximum course load.

Exceptions to these maxima and minima are possible only with the written permission of the graduate dean.

The maximum and minimum loads for graduate students under various types of financial support are summarized below:

TYPE OF FINANCIAL SUPPORT	16 WEEK SEMESTER		8 WEEK SESSION	
	Max.	Min.	Max.	Min.
No financial support	16		12	
Graduate Assistantships				
½ time appointment	12	6	6	3
¼ time appointment	14	6	7	3
More than ½ time appointment	8	3	4	2
Full-time University employees ¹	6		3	
Graduate Fellowships	16	12	8	5
Full Veteran's Benefits	16	10	8	5
Guaranteed Loans	16	8	8	6
SIU Scholarships	16	8	8	4

¹Civil Service staff must have approval from the Personnel Office to register for courses.

SCHOOL OF LAW COURSES

A graduate student may enroll for graduate credit in law courses designated by the symbol "G" (e.g. Law 501G) if the student has permission of the dean of the School of Law. Registration must be processed through the Graduate School and the grades will be reported on the Graduate School letter-grade system (A, B, C, etc.).

A graduate student may enroll in law courses for law credit only if the student has been duly admitted to the School of Law.

A law student may register for law credit in graduate courses with approval of the dean of the School of Law and the graduate dean. Registration must be processed on School of Law forms and the grades will be reported on the Graduate School letter-grade system.

A law student may not register for graduate courses for graduate credit unless the student has been admitted to the Graduate School.

RESIDENCE-CENTER CREDIT

Credit earned at approved graduate residence centers and credit earned in off-campus courses for which graduate credit has been approved will be entered on a student's record as on-campus credit earned at Southern Illinois University at Carbondale.

Students enrolled for credit in approved residence-center master's degree programs or in specific residence-credit courses must have been officially admitted (either in a degree program or unclassified) to the Graduate School at Southern Illinois University at Carbondale.

For information about specific programs and courses, the student should consult the appropriate department in Chapters 2 and 3.

TRANSFER CREDIT

All graduate credits earned by a student in good standing at an accredited university, which have not been applied toward fulfillment of requirements for another degree, are eligible for transfer to that student's degree program at Carbondale, subject to general limitations of Graduate School regulations, to residency requirements for Doctor of Philosophy degree programs, and to acceptance by the student's major department. All transfer credits are subject to final review by the graduate dean. No transfer credit will be given for work bearing a grade below B without express permission of the graduate dean in response to written petition

from the student's department. No credit toward a degree may be earned by correspondence nor in extension courses at another university. In the case of a master's degree, the student must earn at least half of the credit applied toward fulfillment of degree requirements in courses offered by Southern Illinois University at Carbondale.

Students who have been admitted to the Graduate School and who have completed satisfactorily the nine-month agro-industrial and industrial development management program at the graduate school of the United States Department of Agriculture will receive credit from Southern Illinois University at Carbondale for 12 semester hours of graduate work which may be applied toward requirements of a Master of Science degree in agricultural industries.

The department recommending the graduate degree shall administer all required general and final examinations, and a member of the graduate faculty at Southern Illinois University at Carbondale shall direct the student's master's thesis, required research paper, or doctoral dissertation.

GRADING SYSTEM

Grades are recorded by the letters *A*, *B*, *C*, *D*, and *E* (*A* = 4.00). *A* is for outstanding work, *B* for good or average performance, *C* for conditional or not fully satisfactory work, *D* and *E* for failure. Only courses for which the grades of *A*, *B*, *C*, or *S* have been received are acceptable in fulfillment of graduate degree requirements. Graduate students will not receive graduate credit for Pass/Fail grades. They may not register for 400-level courses in which Pass/Fail grading is mandatory and may not receive a grade of Pass or Fail in 400-level courses graded Pass/Fail on an elective basis. Other grades may be:

W—Authorized withdrawal made through a program change where no basis for evaluation has been established. Work may not be completed. This grade is not included in grade point computation for retention purposes.

WP—Authorized withdrawal with a passing grade made through a program change after the first five weeks of a regular semester. Work may not be completed.

WE—Authorized withdrawal with a failing grade made through a program change after the first five weeks of a regular semester. Work may not be completed, but grade is included in calculation of average.

INC—Incomplete. Has permission of the instructor to be completed within a time period designated by the instructor, but not to exceed two years from the close of the semester in which the course was taken. Any extension of this time limit must have the approval of the instructor, the departmental chairperson, the appropriate college dean, and the dean of the Graduate School. If the *INC* remains, it is not included in grade point computation. If the *INC* remains after two years, or until the time for graduation, it is converted to the grade of "E". To complete the work, a student should not register for the course again, but should complete the work from the original registration. (An *INC* for a course in which the *S/U* grade is authorized will revert to a *U* if the work is not completed at the time of graduation and will not be calculated in one's grade point average.)

DEF—Deferred. Used only for graduate courses of an individual, continuing nature such as research or thesis. When the work is completed, the grade is changed to a letter grade by the instructor, except in the case of theses or dissertations. When a thesis or dissertation has been submitted to the Graduate School as approved, the grade is automatically changed to *S*. If a thesis or dissertation is found unacceptable and the student is dismissed from the degree program, the grade of *U* is automatically assigned upon receipt by the Graduate School of the action dismissing the student.

ABS—Unauthorized withdrawal. Used when student fails to continue in attend-

ance, but does not withdraw through a program change. Counted as an *E* in calculating grade point average.

S—Satisfactory. Used for noncredit courses, thesis and dissertation hours, and certain specially designated and approved 500-level research, internship, or practicum courses. Is not counted in calculating grade point average.

U—Unsatisfactory. Used for noncredit courses, thesis and dissertation hours, and certain specially designated and approved 500-level research, internship, or practicum courses. Is not counted in calculating grade point average.

AU—Audit. A student registering for a course on an audit basis receives no letter grade and no credit hours. An auditor's registration card must be marked accordingly and the student pays the same fees as though registering for credit.

During the first five weeks of a regular semester a student registered for a course for audit may change to credit status or vice versa through the official program change method. Thereafter the change may not be made.

Note: Letter grades *A*, *B*, *C*, *D*, and *E* as well as the grades *WE* and *ABS* are included in grade point averages for academic retention. If a graduate student repeats a course with the permission of the graduate dean, both grades will be counted in the grade point average.

Authorized withdrawals made through a program change during the first five weeks of the regular semester do not carry a grade. After five weeks it is at the discretion of the instructor whether or not a *W*, *WP*, or *WE* for an authorized withdrawal. Deadlines for short session courses are printed in the appropriate Schedule of Classes and students are subject to these printed deadlines.

At the completion of a course, the final grade assigned to a student is the responsibility of the instructor of the course. When the work is completed for courses in which *INC* or *DEF* grades have been given, the instructor has the responsibility of determining the final grade to be assigned, and except for theses and dissertations, notifies the Office of Admissions and Records of the final grade to be given by means of the Grade Change Card. To change a final grade assigned to a student, the instructor should submit a Grade Change Card together with an explanation and justification of the grade change for the approval or disapproval of the departmental chairperson, the appropriate college dean, and the dean of the Graduate School.

ACADEMIC GRIEVANCES

Graduate students at Southern Illinois University at Carbondale have the right to appeal for redress of grievance through established channels. Access to these channels is restricted to graduate students who were officially enrolled at the time when the incident that resulted in the filing of a grievance occurred.

A graduate student who wishes to appeal an academic decision should address said appeal to the chairperson of the academic unit or the director of the administrative unit in which the decision to be appealed occurred.

After appeal procedures open to the student at the academic or administrative level at which the conflict that has resulted in the filing of a grievance have been exhausted, the student may request a hearing before the academic grievance committee of the Graduate School. The academic grievance committee is advisory to the dean of the Graduate School and submits its findings to the dean. The academic grievance committee is composed of five members: three graduate faculty and two graduate students.

A graduate student desiring a hearing before the academic grievance committee must submit a written request to the dean of the Graduate School within 30 calendar days after the aggrieved has received the final decision of the person(s) who heard the complaint at the academic or administrative level at which the complaint has arisen. The request must state the following:

1. Name of the aggrieved.
2. Program in which aggrieved is enrolled.
3. Name of the aggrieved's major adviser.
4. Name and title of the person(s) against whom the complaint is based.
5. A means of reaching the aggrieved.
6. A statement of the grievance including descriptions of the incident(s) involved and date(s) of occurrence.
7. All previous action taken.

The request is forwarded within 24 hours to the chairpersons of the academic grievance committee. Upon receiving the complaint, the chairperson of the academic grievance committee selects the investigating team. The investigation is carried out promptly and confidentially and all pertinent facts are reported to the academic grievance committee within 21 days after the grievance has been filed.

Upon receiving the investigating team's report the academic grievance committee decides within 72 hours whether to conduct a grievance hearing or dismiss the complaint as not being a valid complaint or within the committee's jurisdiction or competence to decide. If the grievance is to be heard, the hearing begins within 30 days if at all possible. If the committee denies a hearing the grievant may appeal directly to the dean of the Graduate School.

In general, any question of the character or professional competence of any individual faculty member at Southern Illinois University at Carbondale is considered to be outside the competence of the academic grievance committee to judge.

RETENTION

Any student whose grade point average for all completed graduate courses falls below 3.00 will be placed on academic probation. All 400- and 500-level courses taken after a student is admitted to the Graduate School are considered graduate level and will be included in the graduate grade point average, unless the course is specifically designated, "Not for graduate credit," for all students.

An unclassified student who has accumulated six or more semester hours (or the equivalent) of *C* unbalanced by *A* in all graduate courses taken at SIU at Carbondale will be suspended by the Graduate School.

A degree student who is on academic probation and has been on academic probation for at least one academic term, and who has accumulated six or more semester hours (or the equivalent) of *C* unbalanced by *A* in graduate-level courses taken at SIU at Carbondale, will be suspended from the Graduate School.

Four examples of cases where a student would be suspended: six hours of *C* and no hours of *A*; eight hours of *C* and two hours of *A*; two hours of *C*, two hours of *D*, and no hours of *A*; three hours of *C*, one hour of *E*, and no hours of *A*. A student who is suspended from the Graduate School under these conditions will not again be eligible for admission to the Graduate School unless a special exception is granted by the graduate dean upon petition by the department the student wishes to enter.

GRADUATION

Graduation ceremonies are held each year at the end of the spring semester and the summer session. Degree candidates must apply for graduation with the Office of Admissions and Records by no later than the end of the first week of the spring semester or summer session in which the student plans to graduate. Candidates who plan to complete requirements at the end of the fall semester should apply for graduation during the first week of the fall semester. Although there is no ceremony at that time, degree candidates who complete requirements will have the fact that they have completed all requirements for the degree indicated on their

academic records. The diploma will be issued at the time of the spring commencement.

Application forms are available in the Office of Admissions and Records and may be obtained by mail by writing that office.

A \$10 graduation fee is established for all persons receiving degrees. The fee is payable at the time of application. The fee does not cover the rental fee for the cap, gown, and hood, or the cost of the invitations. These items are ordered through the University Book Store in the Student Center and questions regarding them should be referred to the University Book Store. Ph.D. students are also required to pay a fee of \$31.00 to cover the cost of publication of the abstract and microfilming of the dissertation.

Final, approved copies of research reports, theses, field studies, special project reports, and dissertations are due in the Graduate School office not later than three weeks before graduation. Ph.D. students must also submit the microfilming agreement form and the survey form of earned doctorates at the time the dissertation is submitted.

Although attendance at commencement is not compulsory, students who wish to graduate in absentia must notify the graduate dean in advance. This information is needed for seating arrangements and for mailing purposes.

POSTHUMOUS DEGREES

A graduate degree may be awarded posthumously if the student before his death had substantially completed the work on his degree. This determination shall be the responsibility of the graduate dean in consultation with the administrative officers and faculty of the degree program in which the student had been enrolled.

RELEASE OF STUDENT INFORMATION AND ISSUANCE OF TRANSCRIPTS

The University follows a policy for release of student information in compliance with federal regulations. More specific information may be obtained from the Office of Admissions and Records or from the Graduate School.

A transcript of the student's official educational record is issued by the Office of Admissions and Records under the following conditions: A transcript is sent, issued, or released only upon a student's request or explicit permission, except that such permission is not required when the University faculty and administrative officials or other educational institutions request transcripts for official purposes.

In addition, requests will be honored from a philanthropic organization financially supporting a student and from a recognized research organization conducting educational research provided the confidential character of the transcript is protected. One transcript will be issued directly to a student upon request. The transcript will have the statement, *Issued to the Student*, stamped on its face. Transcripts will be sent without charge to recipients other than the student as requested by the student. A transcript will not be sent, issued, or released if a student owes money to the University as verified by the Bursar's Office or the Housing Business Services Office.



Neckers Building



Technology Building

2

Academic Programs

The official descriptions of programs leading to approved graduate degrees are outlined in this chapter. Admission and degree requirements which are listed in Chapter 1 are minimum standards only, and the student should consult the program description in the selected major area for additional standards imposed by the department.

The titles of the programs are summarized below in alphabetical order. The full descriptions, however, are arranged so that in cases where a department offers more than one program the various programs are grouped together under that department. All programs are cross-listed to aid in locating the official description.

Several departments offer one or more concentrations within the major; the requirements for these concentrations may be found in the program description.

Administration of Justice	English as a Foreign	Music
Agricultural Industries	Language	Occupational Education
Animal Industries	Foreign Languages and	Philosophy
Anthropology	Literatures	Physical Education
Art	French	Physics
Behavior Modification	German	Physiology
Biological Sciences	Spanish	Plant and Soil Science
Botany	Forestry	Political Science
Business Administration	Geography	Psychology
Business Education	Geology	Public Affairs
Chemistry	Guidance and Educa-	Public Visual Communi-
Cinema and Photography	tional Psychology	cations
Community Development	Health Education	Recreation
Computer Science	Higher Education	Rehabilitation Adminis-
Early Childhood Educa-	History	tration
tion	Historical Studies (Ph.D.)	Rehabilitation Counsel-
Economics	Home Economics Educa-	ing
Education (Ph.D.)	tion	Secondary Education
Educational Administra-	Journalism	Sociology
tion and Foundations	Latin American Studies	Special Education
Educational Media	Linguistics	Speech Communication
Elementary Education	Mathematics	Speech Pathology and
Engineering	Microbiology	Audiology
Engineering Biophysics	Mining Engineering	Theater
English	Molecular Science	Zoology

Administration of Justice

The Center for the Study of Crime, Delinquency, and Corrections offers the Master

of Science degree in the administration of justice. This curriculum—a multidisciplinary study of crime, its causes and settings, and systematic means of reacting to it—prepares students for careers in law enforcement, correctional services, and administration; teaching in criminal justice career programs; court auxiliary services; and criminal justice planning. With a merger of theoretical orientations and practical experience, concentrations are offered in the areas of law enforcement, juvenile delinquency prevention and treatment, corrections, criminal justice research, and planning and general criminal justice.

Augmenting the academic program, the research unit provides opportunity for graduate students to work with faculty members conducting research related to the administration of justice and in designing innovative projects in the field. The internship paper is an integral part of the learning process for those who lack first-hand experience in a criminal justice agency.

Admission

Full admission to the graduate program requires at least a 2.7 overall undergraduate average and acceptance by the faculty.

While a major in the administration of justice is the desired undergraduate preparation for graduate study in the field, a variety of other areas of emphasis are acceptable. A minimum of twelve units in sociology, psychology, or other social sciences is recommended. Other undergraduate majors may be appropriate, depending upon the concentration chosen and the extent of planned specialization. In individual cases, additional selected undergraduate courses may be required for acceptance in this program.

Requirements

A minimum of 36 semester hours is required for graduation made up of 15 semester hours of core courses plus agreed upon units in the area of concentration.

CORE COURSES (Required of all students)

CREDIT HOURS	COURSE NO.	TITLE
3	AJ 500	History and Philosophy of the Criminal Justice System
3	AJ 504	Criminological Theory
For those interested in concentrations in law enforcement and corrections, the following courses are required:		
6	AJ 416	Methods of Criminal Justice Research
	AJ 417	Research Practicum in Administration of Justice
3 either or	AJ 587	Seminar in Law Enforcement, or
	AJ 571	Correctional Systems in Criminal Justice
For those pursuing concentrations in criminal justice research or criminological theory, the following are required:		
3 to 6	AJ 516	Research Design and Analysis in Criminal Justice
3 from among	(AJ 587	Seminar in Law Enforcement, or
	(AJ 562	Fundamental Legal Systems in Criminal Justice, or
	(AJ 571	Correctional Systems in Criminal Justice

The area of concentration will be composed of 12 units in addition to the introductory course, 9 of which shall be selected from among the Administration of Justice offerings.

After the completion of 12 to 20 units and prior to the submission of the thesis or

project proposal, the student must take a written preliminary examination covering the history and philosophy of criminal justice, basic research concepts, and an integrated approach to problem solving involving information from coursework in the area of the candidate's concentration. Students failing this test may petition to be re-examined, usually within the following semester.

Completion of the degree program requires the writing and defense of a thesis or field project report, the latter typically representing the study of a problem confronted by the student during his field experience. A thesis will be required for those students in the criminal justice research and planning concentration and those planning to continue on toward an advanced degree.

Internship placement is included as an integral part of most areas of concentration to insure a blending of practical experience with the academic training received by the student.

Within the areas of concentration, a number of specialties are available—law enforcement administration, community-based corrections, juvenile justice, administration of justice education, etc.

Application forms for both the Graduate School and the administration of justice must be separately submitted. Upon request to the center, application forms from the Graduate School and the center will be sent. Acceptance in the program is contingent on the final approval of the administration of justice admissions committee after admission by the Graduate School.

More detailed descriptions of the graduate program, as well as information on teaching and research assistantships and fellowships, may be obtained by writing The Graduate Program, Center for the Study of Crime, Delinquency, and Corrections.

Agricultural Industries

The Department of Agricultural Industries offers graduate work leading to the Master of Science degree in agricultural industries with concentrations in agricultural economics, agricultural education, agricultural mechanization and agricultural services. A specialization in agricultural environmental studies is available in each concentration.

Students interested in agricultural economics and agricultural education at the doctoral level can be admitted to a program of study leading to the Ph.D. in economics or the Ph.D. in education, respectively.

Application forms for admission to the Graduate School may be obtained from the Graduate School. For entering graduate students to be acceptable on an unconditional basis in the agricultural industries concentrations for the Master of Science degree program, a minimal undergraduate grade point average of 2.7 is required. Students may be accepted on a conditional basis if the GPA is below 2.7.

A thesis or research paper is required for the Master of Science degree. In some cases, particularly for students holding assistantships, two academic semesters and a summer may not be sufficient time in which to complete degree requirements.

The School of Agriculture offers courses in agricultural industries as part of a residence-center program at Western Illinois University.

Inquiries for financial assistance and additional information should be directed to the chairman of the Department of Agricultural Industries, Southern Illinois University, Carbondale, Illinois 62901.

AGRICULTURAL ECONOMICS

The concentration in agricultural economics is designed for the professional agricultural economist. Specialization may be attained in farm management, ag-

ricultural marketing, agricultural prices, agricultural policy, resource economics, and agri-business management with emphasis on application to agricultural environmental studies available in each specialization.

Undergraduate competence in economics and agricultural economics must be demonstrated. Students with an insufficient background in economics or agricultural economics may be admitted if remedial courses are taken.

A minimum of 30 hours of graduate credit, including thesis or research hours, is required for the Master of Science degree in agricultural industries with a concentration in agricultural economics. At least 15 hours must be at the 500 level.

Twelve hours of agricultural economics courses are required. This includes Agricultural Industries 500a, 500b, 551, 552, and 581. In addition, the student's program is oriented toward either economics or business. The emphasis in economics is accomplished by completing six hours of graduate level economics courses and Economics 467 or equivalent. The emphasis in business is accomplished by completing six hours of graduate level business courses and Business Administration 410 or equivalent, completed as part of an undergraduate degree may be accepted in meeting the economics or business program requirements. This enables students with strong backgrounds in economics or business to take additional agricultural economics courses or courses in their area of specialization and interest to meet the 30 hour M.S. degree requirement. M.S. students usually take 3-5 hours of research or thesis (a maximum of 5 hours permitted) and complete additional hours by taking courses in agricultural economics, economics, or business.

AGRICULTURAL EDUCATION

The concentration in agricultural education is designed for instructors in secondary schools, for students preparing for employment at junior colleges and for those desiring to continue their education by obtaining a Ph.D. Application of principles of agricultural education to agricultural environmental studies may be emphasized.

A minimum of 30 hours of graduate credit, including thesis or research hours is required for the M.S. degree in agricultural industries with a concentration in agricultural education. At least 15 hours must be at the 500 level.

A minimum of 15 hours is required in agricultural industries with a concentration in agricultural education. At least 15 hours must be at the 500 level.

A minimum of 15 hours is required in agriculture (including agricultural education), six hours of research methods or statistics, and six hours in education or community development. M.S. students usually take 4-6 hours of research or thesis, and complete the additional hours by taking courses in education or agriculture.

AGRICULTURAL SERVICES

The agricultural services concentration is designed to permit students who are engaged in agriculture as extension workers, as soil conservation employees, in mechanization related industries, agricultural environmental service, etc., to expand their educational experiences in light of current and prospective employment goals and opportunities.

A minimum of 30 hours of graduate credit, including thesis or research hours, are required for an M.S. degree in agricultural industries with a concentration in agricultural services. At least 15 hours must be at the 500 level. Fifteen hours must be agricultural courses. Students usually take 4-6 hours of research or thesis and complete the additional hours by taking courses in their area of specialization.

AGRICULTURAL MECHANIZATION

The concentration in agricultural mechanization is designed to permit students interested in agricultural mechanization the opportunity to specialize in one or

more of the following areas: (a) power and machinery operation and field testing, (b) product handling, processing and storage, (c) farm equipment sales, service and product education, (d) machinery selection and efficient utilization in the farming operation, (e) Agricultural structures — sales and construction supervision, (f) Agricultural electricity — service and consumer advisement, (g) conservation of soil and water. Each of these areas offers application in agricultural environmental studies.

A minimum of 30 hours of graduate credit, including thesis or research hours are required for the Master of Science degree in agricultural industries with a concentration in agricultural mechanization. At least 15 hours must be at the 500 level. Based on the professional goals of students, 24 hours of course work may be selected from one or more of the following: the School of Agriculture, the College of Education, the Department of Technology, and the College of Business and Administration.

Animal Industries

The Department of Animal Industries offers programs of study leading to the Master of Science degree in animal industries. Programs may be designed to meet the requirements of candidates in the various disciplines of breeding, nutrition, physiology or production with emphasis on beef cattle, dairy cattle, horses, poultry, sheep or swine. Supporting courses may be selected in applied science, chemistry, microbiology, physiology, zoology, behavioral science, agriculture, etc.

Admission to programs administered by the Department of Animal Industries must be approved by the department. Application for admission to graduate study in animal industries should be directed to the Graduate School. The applicant must have the registrar of each college previously attended send three official transcripts of his record directly to the Graduate School. Supporting materials for the application should be sent to the Department of Animal Industries and include two letters of recommendation from individuals who can evaluate the candidate's academic ability and a letter in which the applicant expresses his professional and personal objectives.

Requirements

Minimum requirements for the master's degree may be fulfilled by satisfactory completion of 30 semester hours of graduate credit. If the student writes a thesis, 15 of these semester hours (which may include thesis credits) must be in animal industries courses; if the student submits a research paper, 20 of these semester hours must be in animal industries courses. Minimal requirements for students entering the master's degree program are: a) meet animal industries undergraduate requirements; b) minimal GPA of 2.7 (A=4.0).

Students who do not meet the undergraduate requirements may correct these deficiencies while an unclassified student or with the consent of the department during his graduate program. Students entering the animal industries graduate program with a GPA below 2.70 are accepted on a conditional basis and must enroll in 8 hours of structured courses at the 400-500 level during their first semester and make a 3.0 GPA or be dropped from the program.

Each student, whether in the thesis or non-thesis option, will have an advisory committee of at least four members including the departmental chairman and at least one other member of the department. Each master's degree candidate must pass a comprehensive oral examination covering his graduate work including the thesis or research paper.

Students interested in animal science at the doctoral level can be admitted to a program of study leading to the Ph.D. degree in physiology. The program, in the Department of Physiology, is adequately flexible to allow students to emphasize

such areas as behavioral science, endocrinology, metabolism, microbiology, physiological genetics, or reproductive physiology.

For admission requirements and program description the student should consult the Physiology section in this chapter.

The School of Agriculture offers courses in animal industries as part of a residence-center program at Western Illinois University.

Information concerning admission policies, requisites for graduation and availability of financial assistance for graduate study in animal industries may be obtained from the Department of Animal Industries, Southern Illinois University, Carbondale, Illinois 62901.

Anthropology

The Department of Anthropology offers graduate programs leading to the Master of Arts and Doctor of Philosophy degrees. Within the Master of Arts program the department offers a concentration in conservation archaeology. Provided the student has been admitted to the Graduate School and meets its requirements, acceptance and continuation in the graduate program are at the discretion of the Department of Anthropology.

A special strength in art and anthropology may be gained by including Anthropology 404, 405, 570 or 571, six hours of practical work in art in any one of Art 400 to 406, 414, 500 to 506, and 514, as well as Philosophy 560.

The philosophy of the Department of Anthropology is to produce students with broad backgrounds in the major sub-fields of anthropology and expertise in particular specialty areas. Within this philosophy, and subject to the requirements discussed below, the department hopes to create a flexible program which will cater to students with diverse needs and goals.

Admission application forms should be obtained from and returned to the Graduate School. In addition, the student must provide three letters of recommendation and a personal statement of aims and interests; these materials should be forwarded directly to the director of graduate studies in the Department of Anthropology. No special program of previous work is required. Applicants with academic degrees in fields other than anthropology are encouraged to apply.

The Program

In addition to the Graduate School requirements specified in this catalog, the following departmental requirements apply to all graduate students in anthropology: 1) In one period of four semesters, the completion of a minimum of eight graduate level courses; these courses should include at least one from each of the major sub-fields of anthropology. 2) The completion of Anthropology 400D, or its equivalent, and Anthropology 409. 3) A demonstrated reading competence in a language foreign to the student. 4) The acquisition of some formal experience in teaching.

Each Spring semester the department administers a written preliminary examination which all students are expected to take during their first year; a student failing to take the examination during the first Spring semester in residence shall be considered to have withdrawn from the program. The first part of the preliminary examination is designed to assess the student's critical and analytic abilities; the second part samples the student's knowledge of the sub-fields of anthropology. After the faculty has evaluated the first part of the preliminary examination as well as the student's total academic record, the student is granted or denied approval to continue in a degree program. After evaluating the second part of the examination, the faculty may direct the student to correct specific sub-field deficiencies.

Master's Degree Program

A student approved for the M.A. program will select a three-person faculty committee to assume major responsibility for advisement and future guidance. For details on the procedures involved, the student should first consult with the director of graduate studies.

In addition to Graduate School regulations, the following provisions apply for the M.A. degree: 1) Completion of a total of 30 hours of graduate course credit; only three credits in Anthropology 599 may be counted toward this minimum. 2) Instead of a thesis, one may submit a published paper, or a paper accepted for publication in an approved professional journal; or one may be authorized to substitute a research paper for a thesis or published paper. 3) In addition to copies required by the Graduate School, one copy of the M.A. thesis, published paper, or research paper must be deposited with the department.

Conservation Archaeology

The M.A. with a concentration in conservation archaeology is designed to prepare the student for the increasing employment opportunities in the administration and direction of programs in conservation archaeology.

Requirements for this concentration are identical to those for any M.A. in anthropology, with the following exceptions: 1) Students need not take the linguistic section of the preliminary examination's second part. 2) A special examination in basic anthropology and archaeology is required. 3) Statistics may be substituted for the foreign language requirement. 4) Although a thesis is normally required, students continuing into the Ph.D. program may be permitted a nonthesis alternative.

Any student entering the Ph.D. program after obtaining an M.A. degree in conservation archaeology must complete the linguistic section of the preliminary examination and meet the foreign language requirement.

The required 30 credit hours for an M.A. in conservation archaeology include Anthropology 400C, 400D, 404 or 405, or an approved substitute, 406, 409, 430A, and 6 hours of 599.

In addition to regular courses and seminars, the student is expected to engage in field and laboratory work. Archaeologists in the department and the Center for Archaeological Investigations involve conservation archaeology students in their contracts with private corporations and federal, state, and municipal governments.

Doctor of Philosophy Degree Program

After completing the equivalent of the master's degree, the student applies directly to the Graduate School for admission as a doctoral student. Three letters in support of the application should be forwarded to the director of graduate studies in the Department of Anthropology.

After admission to the doctoral program, the student forms a faculty committee; for details on the procedures involved, the student should first consult with the director of graduate studies.

The requirements for the Ph.D. degree include: 1) Additional course work in anthropology and other fields within the student's interests; the Ph.D. committee is expected to help formulate a study program that will usually involve at least an additional academic year of full-time course work beyond the M.A. 2) Research tool requirements will vary and will be determined between the student and the committee; in all cases a reading knowledge of at least one foreign language will be required, but other tools could include, for example, computer science, statistics, biometrics, a second language, or any combination of these. 3) Within a period not to exceed three years of full-time graduate work, the committee will administer a three-hour special oral examination covering topical and geographical special-

ties. The student may not take the examination until two years of full-time graduate work have been completed, except by authorization from the dean of the Graduate School. In evaluating the examination, the committee may pass the student, fail the student but allow a retake of the examination at a later time, or fail the student and request dismissal from the program.

Ph.D. candidacy. After completion of the above requirements, the department will recommend a student to the Graduate School for candidacy. The candidate will normally undertake problem-oriented field research to acquire materials for the dissertation. Candidates must register for 24 hours of credit in Anthropology 600.

When the dissertation has been accepted by the Ph.D. committee, an oral defense will be held in accordance with Graduate School requirements. Two copies of the dissertation must be filed with the Graduate School and one with the Department of Anthropology.

Art

The School of Art offers graduate studies leading to the Master of Fine Arts degree in art with a concentration in studio, and offers studies constituting a teaching specialty in art for the Master of Science in Education degree in secondary education. The student is expected to select an area of study (studio or art education), and a program will be planned in consultation with the major professor in that area.

Admission

An undergraduate degree in art or art education, or the equivalent in course work or experience if the undergraduate degree is in another discipline, is required for admission into the Master of Fine Arts degree program. The student must also submit transcripts of all previous undergraduate work, present slides or a portfolio of creative work, and may submit letters of recommendation.

In most cases an undergraduate degree in art education is required for admission into the program constituting a teaching specialty in art for the Master of Science in Education degree in secondary education. Any exception to these requirements must be approved by the faculty in the studio or art education fields and by the director of the School of Art.

M.F.A. Degree

Credit hour requirements for the Master of Fine Arts degree in art with a concentration in studio (painting, printmaking, drawing, sculpture, ceramics, metal-smithing, and fibers), are a minimum of 48 semester hours, and all hours that are to count towards graduation must have the approval of the student's major adviser in studio specialty. The length of time required to complete a 48 semester hours program is usually 4 semesters or 2 academic years. Most graduate students are in residence for 4 semesters, but the minimum residency requirement is 2 academic semesters. Programs of residency must have the approval of the student's major adviser.

Required hours are distributed as follows: 20 hours in the major field (studio specialty), 9 hours in art history or related subjects, 6 hours in thesis or terminal project work, and the remainder in electives. Elective hours may be completed within any discipline in the School of Art, or in the University at large.

In addition to the completion of course work, all candidates for the M.F.A. degree must, during the last semester of academic work, present a graduate exhibition, present a terminal project or a written thesis, and pass an oral examination. The terminal project is a creative activity presented in lieu of the written thesis, and in practice, the graduate exhibition is considered to satisfy the terminal project requirement.

Graduate education in studio specialties is expensive, and because of the individual nature of creative work, it is virtually impossible to predict the exact cost for each student. The School of Art provides the faculty, and the studio and shop facilities that are necessary to the programs offered, but all other costs, especially materials, that are considered necessary to the successful completion of a graduate program are borne by the student.

Art as a Teaching Specialty

The Master of Science in Education degree in secondary education with a teaching specialty in art requires a minimum of 30 semester hours of graduate credit. Two art education program options are available: (1) the research option for those interested in research, supervision or eventual doctoral studies, and (2) the teacher-studio option for improving teaching and studio skills.

The research option requires 13 hours in education, 11 hours in art education, 3 hours of thesis (or research paper) with the remaining hours for art electives. The teacher-studio option requires 13 hours in education, 6 hours in art education, 3 hours for thesis (or research paper) with the remaining hours for art electives. All hours that are counted toward graduation and election of either a thesis project or a research paper must have the approval of the art education graduate adviser.

Biological Sciences

A student may pursue a program of studies leading to the Master of Science degree in biological sciences.

Requirements for Admission

1. Bachelor's degree with a major in a natural science department.
2. Admission to the Graduate School.
3. Approval of the chairman of the biological sciences committee or his designated representative.

Requirements for the Master of Science Degree in Biological Sciences

The student must complete 40 hours of graduate courses in the biological sciences. Special courses required of any student are to be determined by consultation between the student and the program committee, with the following provisions:

1. No more than 24 hours of credit in any one department may be used for the degree.
2. No minor is required.
3. Have at least 15 hours of credit in 500-level courses. These may not include more than 3 hours for special problems, 3 hours for seminars, and 2 hours for readings.
4. Complete at least one 400- or 500-level laboratory course in three of the departments of the biological sciences.
5. Submit a research paper.
6. Attend, for credit, at least one semester of seminar in three of the departments of the biological sciences.

Advisement

Guidance of students shall be by a program committee of three members, one from each of the biological science programs involved, or other departments at the discretion of the program committee. The program director will serve as an ex-officio member.

Graduate work may be taken in the Departments of Botany, Microbiology, Physiology, and Zoology to obtain a Master of Science degree in biological sciences in the College of Science.

Additional information may be obtained from the director of the graduate biological program, Department of Zoology, SIU, Carbondale, Illinois 62901.

Botany

Graduate degrees in botany will be awarded to students in recognition of their ability to do independent research as evidenced by the acceptance of a thesis or dissertation and by the demonstration of competent scholastic ability. The Department of Botany offers graduate programs leading to the Master of Arts, the Master of Science, and the Doctor of Philosophy degrees in botany. Teaching experience in undergraduate courses is expected as part of the Ph.D. degree program.

Admission

Students must be admitted to the Graduate School before they can be considered by the department. All applications to the department must include three letters of recommendation, transcripts, application form, and may include a financial assistance form. Criteria for admission include grade point average, transcript analysis, letters of recommendation, and availability of faculty, space, and facilities.

Applicants must have completed a course (or equivalent) in each of the following areas (these may be completed concurrently with work toward the degree): A. general botany, B. plant diversity (survey of the plant kingdom), C. plant physiology, D. plant taxonomy, E. ecology, F. genetics, G. additional requirements for the B.A. Degree as specified by the College of Science in the current Undergraduate Catalog of Southern Illinois University at Carbondale.

A student deficient in three or fewer of these areas (A through G) must be admitted with conditional standing. A student admitted with conditional standing must make up all deficiencies within the first academic year, and until such deficiencies are completed, no more than 10 academic units can be accrued toward the degree. Students lacking four or more of these areas must register as unclassified.

Advisement

Following admission to the department and before registration for course work, the student must consult the staff member representing the field of major interest or, if this is unknown, the graduate adviser of the department, for assistance in planning first registration. At every registration, deficiencies and specific departmental requirements must be considered first. Any changes in registration must be approved by the student's adviser.

Within the first six months of admission into the departmental program, the student should select a faculty member who is willing to serve as the major adviser. The major adviser in consultation with the student, the graduate adviser, and the chairman of the department will then select an Advisory Committee with the major adviser as chairman. For the master's degree program a minimum of three persons shall make up the advisory committee. The advisory committee for the Ph.D. program will be composed of five persons, one of whom will be selected from a discipline other than botany.

Following establishment of the advisory committee and before advance registration for the third term, the student will meet with the committee to discuss the program of courses for the degree and plans for research. In this regard, the committee is empowered to require work in fields with which the student's interests are allied. The advisory committee will advise the student on the selection of readings on general and historical topics of importance which may not be encountered in formal courses. Copies of the approved program of courses and the plans for research must be placed in the departmental files.

Academic Retention

In addition to the retention policies of the Graduate School, the Department of Botany requires that each student must maintain an overall grade point average of 3.0 ($A = 4.0$). Upon falling below this average, the student will be allowed two academic terms to bring the average up to 3.0; failing this the student will be dropped from the program and not be allowed to re-apply. No course in which the grade is below *C* shall count toward the degree or fulfillment of any requirement, but the grade will be included in the grade point average. No more than five hours of *C* work in graduate courses will count toward the degree.

All students are subject to regular review by the department's graduate policies committee. Those not attaining the minimum acceptable academic standards or who in any way fail to meet any other scheduled requirements or standards will be dropped as majors.

Course Requirements

All graduate students shall be required to enroll in and take part in the departmental seminar each term. In case of an unavoidable scheduling conflict, the student must register for a departmental seminar in another appropriate department of biological sciences. Audited courses may not be counted toward completion of any minimum requirements of the department.

Appeals

Appeals for variations from the departmental graduate program must be presented in writing to the botany graduate faculty meeting as a committee of the whole. Appeals must receive approval from a majority of the total botany graduate faculty.

Appeals for changes in the student's graduate advisory committee or changes in the original program must be approved in the following order: (1) approval from adviser, (2) approval from remaining members of the student's Advisory Committee, (3) approval from graduate policies committee.

Student appeals for change of major adviser must be presented in writing to the botany graduate faculty meeting as a committee of the whole. Appeals must receive approval from a majority of the total botany graduate faculty.

The Master's Degree

A minimum of 30 hours of graduate credit is required beyond the bachelor's degree, including no less than 22 hours of botany courses, 10 hours of which may be research and thesis, and 3 hours of which may be seminar. A graduate minor of at least 10 graduate hours may or may not be required; this is to be determined by the student and the advisory committee. The M.A. degree requires an additional minimum of passing the ETS examination in a foreign language.

The Ph.D. Degree

Courses. The major shall consist of a minimum of 20 semester hours at the 400 and 500 levels in formal botany course work beyond the master's degree but excludes seminar, readings, research, dissertation, and research tool requirements.

The decision as to whether a minor shall or shall not be required shall be left to the student's advisory committee. If the committee requires a minor, it will determine the specifications of that minor.

The student shall demonstrate knowledge in each of the two foreign languages by passing an Educational Testing Service examination. The ETS passing level for French and German shall be 465 and the ETS passing level for Russian and Spanish shall be 440. Proficiency in statistics, computer programming, or research photography may be required in lieu of one of the languages or in addition to the languages if the advisory committee so rules. A research tool to be substituted for

one language must be completed utilizing formal courses consisting of at least two terms (at least 6 hours) with an average grade of *B* or better. Courses used to satisfy the requirement shall not be applied toward the total number of hours required for the degree.

Diagnostic Examination. A written examination will be given to each entering student. The examination will be offered during the fall term each year, will last about three hours, and will cover the areas of anatomy-morphology, ecology, taxonomy, genetics, and physiology. The graded examination will be given to the student's adviser and is to be used in planning the student's program (this examination is not to be construed as replacing any part of the preliminary examination nor is it to be used as a qualifying examination).

Preliminary Examination. The student's advisory committee shall serve as the preliminary examination committee and shall prepare and administer the examination which will be both written and oral.

The written examination will be taken first and will cover the candidate's knowledge of botany and related fields and their history, the student's accomplishments in the course of study outlined and the student's progress in the special field. The candidate will be expected to show an understanding of the application of his or her formal work to his or her field of research. The written examination will consist of three parts: the first will include questions in the student's special field of interest, the second will include questions testing basic knowledge in botany, and the third will include questions in the student's outside minor field or secondary concentration within botany.

The entire written examination is to last no longer than 5 days and each part is to last no longer than 8 hours. The student must pass all parts of the written to proceed to the oral examination. Pass means sufficient information is evident to permit the student to proceed to the oral part of the examination.

In order to pass the written examination the vote of the advisory committee will determine (by majority vote) whether the student will be allowed to continue in the program and whether the student will be required to retake part or all of the written examination. Upon failing the written examination, the student may not retake the examination in the same academic term. In any event the student must pass the written examination by the third attempt in order to continue in the doctoral program.

The oral examination will be taken no sooner than 10 days nor later than 30 days following the passing of the written examination. The examination shall last at least 2 hours and no more than 4 hours and should be scheduled to allow attendance of a maximum number of the botany graduate faculty and all of the advisory committee members. The student's answers to the written examination will be made available to the graduate faculty in botany (upon request) prior to the oral part of the preliminary examination. All attending graduate faculty members will be given the opportunity to express their opinion on the examination. Passage of the oral examination must be by unanimous vote of the advisory committee and may have conditions.

Final Examination. The final examination will be oral. It shall be held at least one month before graduation and shall last for no more than 3 hours. It is to cover the dissertation and related subject matter. The advisory committee must notify the graduate adviser of its recommendation for the date of the final examination at least two weeks before the examination.

Passage of the final oral examination should be construed to mean that there be no more than one dissenting vote of the advisory committee. In the event of failure a second examination may be held as directed by the advisory committee.

Business Administration

The graduate faculty in business administration, consisting of members of the Departments of Accountancy, Administrative Sciences, Finance, and Marketing of the College of Business and Administration, offers graduate work leading to the Master of Business Administration degree. The M.B.A. program has as its objective the development of professional managers and executives to serve the needs of business and government and to prepare interested graduates for doctoral study. The program has been structured with flexibility so as to serve holders of baccalaureate degrees in business administration as well as those who hold degrees in other disciplines.

Admission Requirements

1. Complete all admission requirements set forth by the Graduate School.
2. Complete the Graduate Management Admissions Test (Princeton test) and have the results of the test mailed directly to the associate dean for graduate programs, College of Business and Administration. Information regarding this test is available by writing to: Graduate Management Admissions Test, Educational Testing Service, Box 966, Princeton, New Jersey 08540.
3. An undergraduate cumulative grade point average of 3.00 is preferred, and no less than 2.5 grade point average is permitted for admission. These averages are calculated on a 4.0 scale.

Degree Requirements

A minimum of 30 semester hours of course work is required. Students also must complete successfully (maintain at least a 3.0 average) BA 598, and four of the following courses: BA 501, 510, 530, 540 and 550. The course in business policy, BA 598 is taken during the student's last semester and includes a study of a number of comprehensive cases, managing aspects of a simulated business in a competitive environment and a final examination. Candidates who receive permission to write a thesis must complete a minimum of 27 semester hours of course work plus an acceptable thesis for which 6 semester hours of credit are assigned.

Students who enter the Master of Business Administration degree program without the necessary foundation courses in the common body of knowledge in business and administration as specified by the American Assembly of Collegiate Schools of Business must complete them in a satisfactory manner prior to starting the program of course work. These students may be required to complete as much as 30 additional semester hours of acceptable course work.

The Master of Business Administration program course work to be taken beyond the foundation courses is determined on an individual basis in conference with the associate dean for graduate programs, College of Business and Administration. Candidates must satisfy requirements in the following areas: business policy, financial management, managerial accounting marketing, operations research, organizational behavior and research methodology.

The candidate may select a concentration, not to exceed 15 semester hours of credit in accountancy, or 12 semester hours of credit in administrative sciences (personnel or production), finance, or marketing. The candidate may also choose various courses in a wide variety of areas of graduate study throughout the University.

Transfer Credit

Within limits imposed by the policies of the Graduate School, transfer credit shall be permitted for up to nine semester hours for incoming students only, but under no

circumstances can the stated minimal number of hours required within the program for graduation be reduced as a result of the acceptance of incoming transfer credit. A decision on whether to accept the course proposed for transfer credit shall be at the option of the associate dean for graduate programs, College of Business and Administration.

No transfer credit shall be permitted for any student who voluntarily departs from campus after beginning the program unless, and until, the student petitions the graduate programs committee of the College of Business and Administration stating the reasons for the request for transfer credit, and receives, from the committee, permission for the transfer. In any case the approved transfer credit may not exceed three semester hours but shall be counted in meeting the stated minimal number of hours required within the Program for graduation.

Academic Retention

In addition to the retention policies of the Graduate School, a student enrolled in the MBA Program who receives a third grade of *C* or lower in graduate or deficiency courses shall be automatically dismissed from the Program. If the third grade of *C* or lower is received in any term or session subsequent to, or concurrent with, the student having attained 24 or more semester hours of 500-level course credit, the student may petition the graduate programs committee of the College of Business and Administration for permission to remain in the Program.

If, for any reason, students who at the end of any term or session have three outstanding recorded grades of either Inc or Def or any combination thereof remaining on their record shall not be deemed to be making normal progress and shall be placed on probationary status. If, thereafter, the students have three outstanding grades of either Inc or Def or any combination thereof remaining on their records at the end of any subsequent term or session, the student shall be dismissed from the Program.

3-2 Program

A 3-2 program within the College of Business and Administration is available to qualified transfer students and students majoring in areas other than business. The program permits a student to devote a part or all of the last year of undergraduate study to fulfilling the foundation course requirements for the MBA degree. Upon completion of the requirements for the bachelor's degree, the student may apply for admission to the Graduate School and the MBA program.

Students majoring in any discipline within the College of Business and Administration are ineligible for participation in the 3-2 program. For details contact the associate dean for graduate programs, College of Business and Administration.

Concurrent J.D. and M.B.A. Programs

A student who has been admitted separately to the School of Law and to the graduate program in business administration may apply for permission to study concurrently for both the Juris Doctor and the Master of Business Administration degrees. This permission must be requested from both the School of Law and the graduate program in business administration, ordinarily prior to entry into the second-year curriculum of the School of Law.

During the first academic year of concurrent work on the two degrees, the student enrolls only in the first-year law curriculum. In any subsequent academic term the student may enroll either for courses only in the School of Law or only in the Graduate School, or for courses in both units. A student registered for both law and graduate courses in the same term must enroll for a minimum of ten semester hours in law, and twelve semester hours in total, in order to meet A.B.A. residence requirements and the academic requirements of the School of Law.

Completion of the concurrent programs requires that the student successfully complete 81 semester hours of law courses and 30 semester hours of courses that meet M.B.A. requirements. In addition, the student must fulfill all other require-

ments of the School of Law, the Graduate School, and the program in business and administration for the J.D. and M.B.A. degrees.

Business Education

(see Vocational Education studies for program description)

Chemistry and Biochemistry

Graduate courses of study leading to the Doctor of Philosophy and Master of Science degrees in chemistry are offered by the Department of Chemistry and Biochemistry.

General Requirements: All Graduate Degrees

Admission. Each undergraduate student must have an undergraduate major in chemistry (including items 1 through 5) or present certification of credit or its equivalent (earned either as an undergraduate or a graduate student) for the following in order to be eligible for admission to an advanced degree program:

1. General chemistry and one course of inorganic chemistry.
2. One year of organic chemistry (lecture and laboratory).
3. One year of analytical chemistry, including introductory instrumental techniques.
4. One year of calculus-based physical chemistry (lecture and laboratory).
5. No less than a formal course of one year's duration in one of the following languages, French, German, or Russian.

Core Courses. All chemistry graduate students who are admitted unconditionally must take and complete all of the graduate core courses during their first year of residence. Students, particularly those entering with master's degrees, who have had prior exposure to the material contained in the core courses may take proficiency exams for these courses during the week prior to the beginning of the courses. These examinations will be equivalent to the final examination in the course and a grade of 75% or better will be required for students to successfully proficiency out of taking the course. Students are expected to maintain *at least* a B average in these courses. Their performance in this core will be evaluated by the faculty meeting as a committee-of-the-whole. The faculty will recommend (a) termination (giving cause), (b) continuation in a terminal M.S. Degree program, (c) continuation in the M.S. Degree program with the option of petitioning for admission to the Ph.D. program upon completion of M.S. Degree, (d) continuation in the M.S. Degree program but allowed to petition for a masters degree equivalency when all M.S. requirements except thesis are fulfilled, and then enter the Ph.D. program directly, and (e) continue in the Ph.D. program if an M.S. was earned prior to enrollment in our program.

Research Tools. There is no departmental requirement of research tools. However, a student's graduate committee, taking into account the student's background and the requirements of his research area, may require a student to acquire one or more research tools (e.g. foreign language, computer programming, statistics, etc.).

Research, Practicum and Training Assignments. All graduate degree programs require research. In addition, the student, each term, must work on a professional training assignment. This assignment may include practical teaching of chemistry, special training in the operation of research instruments or assignment to a specific research project. The assignment varies according to the needs, professional goals, and competencies of the student. The student is required to enroll in

Chemistry and Biochemistry 597 — Professional Training — for one credit hour each semester in residence.

Requirements for Master of Science Degree

In addition to meeting the general requirements of the Graduate School, a candidate for the Master of Science degree in chemistry is required to:

1. Fulfill core course requirements.
2. Earn six credit hours at the 500-level in formal course work in one of the five basic fields of chemistry, (Chemistry 451a,b, may be taken in place of one (1) 500-level biochemistry course). Core courses will not fulfill this requirement.
3. Earn 27 hours credit in chemistry courses, or 20 hours in chemistry if an outside minor is elected. A total of 30 semester hours is needed for graduation of which 15 hours must be at the 500 level.
4. Maintain a 3.00 grade-point average.
5. Attend weekly seminars and earn one hour credit (Chemistry 595) by presentation of a seminar.
6. Earn a minimum of 8 hours in research and thesis (Chemistry 598 and 599).
7. Demonstrate competence in a Research Tool if required by the student's committee.
8. Prepare and present a thesis on the research carried out.
9. Schedule and pass a final oral examination. Copies of the thesis must be distributed to the members of the Graduate Committee at least one week prior to the examination.

Requirements for Doctor of Philosophy Degree

A. Students entering the Ph.D. program must either have a master's degree in chemistry or must have a master's equivalency as defined by the Graduate School. In addition, all students in the Ph.D. program must:

1. Fulfill core course requirements.
2. Complete a course of study as determined by their graduate committee.
3. Earn one hour credit in seminar (Chemistry 595) beyond the master's degree requirement, and attend weekly seminars.
4. Earn a minimum of 32 hours in research and dissertation (Chemistry 598 and 600).
5. Pass cumulative examinations.
 - a. After having fulfilled all the core course requirements candidates may begin taking cumulative examinations. Graduate students holding a master's degree in chemistry may proceed with the cumulative examinations in those areas in which they have passed the diagnostic examination.
 - b. Students may elect to take cumulative examinations in their major area only, or they may elect to take cumulative examinations in different areas. If the latter course of action is elected, the chemistry department graduate advisers must be informed of the intention to pursue a cross-area curriculum at the time the research director is selected. It is the responsibility of the student's graduate committee to determine how the cumulative examinations are to be divided among the several areas. However, in no case can the total cumulative examination requirement be less than stipulated below.
 - c. Ten examinations are to be given each calendar year with four examinations respectively in the fall and spring semester and two examinations in the summer semester. Cumulative examinations may be written examinations not to exceed two hours in length. Take-home examinations, laboratory examinations, or oral examinations may be substituted for a written examination. All areas will give their examination simultaneously. The time and place for the examination will be posted at least ten

days before an examination. The subject of an examination may be announced in advance of the examination. Students must register to take the examination at least one week before it is scheduled.

- d. A student must pass five examinations in no more than fourteen trials in order to continue for the Ph.D. degree. A student must take consecutive examinations. They are urged to begin as soon as they are eligible. He is not liable for examinations during any time they are not enrolled in school.
 - e. Each examination is to be prepared, administered, graded and recorded by one member of the faculty who will determine the pass-fail line on that examination. Students taking the examination will be notified in writing whether or not they passed the examination. One copy of this notification will be filed with the graduate adviser and a second will be placed in the student's file by the cumulative exam coordinator.
6. Pass Preliminary oral examination following completion of the cumulative examination requirements.
 7. Maintain a 3.25 grade-point average.
 8. Demonstrate competence in a research tool, if this is required by student's committee and if this requirement was not fulfilled during previous graduate studies. This requirement must be fulfilled prior to scheduling the preliminary oral examination.
 9. Complete the dissertation following the specifications set forth by the Graduate School.
 10. Schedule and pass a final oral examination (defense of dissertation). Copies of the dissertation must be distributed to the members of the graduate committee at least one week prior to the examination.

Cinema and Photography

The Master of Fine Arts degree in cinema and photography is intended to provide substantial advanced training to a small number of highly talented individuals. Emphasis in the program is upon the artistic development of the individual student and the student's creative utilization of cinema or photography. Within the program students can elect to specialize in cinema production, professional photography, or fine arts photography.

Acceptance in the program and subsequent continuation in it are at the discretion of the Graduate School and the Department of Cinema and Photography. Minimal admission requirements are those of the Graduate School. Students should contact the department regarding admission procedures. Prior to admission to the program, students must satisfy the departmental faculty that they are artistically qualified by presenting evidence of exceptional talent in one of the three areas of specialization offered in the degree program. This evidence will ordinarily consist of a portfolio of photographs or one or more films. In addition, applicants must arrange for three letters of recommendation to be forwarded in support of their application. It is assumed that most of the students applying for admission to the M.F.A. program will be graduates of institutions other than Southern Illinois University at Carbondale. All such students would ordinarily provide evidence of having completed training of a thoroughness and quality equivalent to that offered in the undergraduate program of the Department of Cinema and Photography. Students with an M.A. or M.S. degree will also be considered for admission. It is recommended that students wishing to specialize in still photography have a course-work background equivalent to Cinema and Photography 310, 311, 320, and 322. It is recommended that students wishing to specialize in cinema have a course-work background equivalent to Cinema and Photography 355, 356, and 368.

In addition to the above admission requirements, an interview with the department's graduate committee is highly recommended, particularly for students with minimal course work in the field.

A graduate student entering the M.F.A. program is normally expected to spend the equivalent of two academic years fulfilling required work. If the student lacks adequate course work preparation, or if the student serves as a graduate assistant, a longer period may be required. Normally the first year would be spent completing advanced course work in the Department of Cinema and Photography and other departments. Students' creative work and artistic abilities are reviewed at the end of their first year in the program. If the faculty should conclude that a student has not made sufficient progress, such a person would be dropped from the program. In the second year of residence, each student would be engaged in a great deal of independent artistic work culminating in the M.F.A. creative project, involving the completion of one or more photographic exhibits or the completion of one or more motion pictures. The exact nature of the project would be determined in consultation between students and their committees. All creative projects would have to be exhibited publicly and be subject to criticism from both within and without the program before the department would consider this requirement satisfied.

The department chairperson appoints in consultation with the student, a major adviser and a committee of two additional graduate faculty members. This committee develops a specific plan of study with the student, considering not only the requirements of the Graduate School and of the degree program, but also the goals of the student. The major adviser supervises the creative project. The university reserves the right to retain a portfolio of each student's work. An oral examination by the faculty advisory committee would focus on an evaluation of the project. A formal report describing the project must be filed with the Graduate School.

Degree requirements are 52 semester hours, including 26 hours at the 500 level, and 12 hours of production courses in the area of specialization during the first year in residence.

Required courses are:

Professional Photography Specialization—four of the following:

- 403-3 Studio Portraiture
- 405-3 Commercial/Industrial Photography
- 406-3 Advertising/Illustrative Photography
- 407-3 Publications Photography I
- 408-3 Publications Photography II
- 415-3 Technical and Scientific Photography
- 418-3 Documentary Photography
- 470B-1—9 Advanced Studies in Photography

Fine Arts Photography Specialization—four of the following:

- 420-3 Experimental Camera Techniques
- 421-3 Experimental Darkroom Techniques
- 422-3 Advanced Color Photography
- 423-3 Reconstruction of Color
- 425-3-9 Studio Workshop

Cinema Production Specialization

- 455-3 Film Production III
- 456-3 Film Production IV
- 468-3 Advanced Film Theory
- 470A-1-9 Advanced Studies in Cinema

15 hours in a supporting field. This could consist of course work in a single field or be an interdisciplinary minor. In all cases, the student would design the supporting field and supply a rationale describing how it would contribute to their artistic development.

Four hours of the M.F.A. Seminar (Cinema and Photography 595).

At least 6 hours of M.F.A. Projects (Cinema and Photography 597).

At least 9 hours of Cinema and Photography electives. Beyond the 400-level C&P courses, the following courses would be acceptable to satisfy this requirement.

PVC 541A-3 Seminar: History of Photography

PVC 541B-3 Seminar: History of Photography

PVC 542A-3 Seminar in Film History

PVC 542B-3 Seminar in Film History

PVC 572A-2 Management of the Photographic Unit

PVC 572B-2 Management of the Photographic Unit

PVC 574-3 Contemporary Film Theory

Completion of an M.F.A. creative project (registration for at least 6 hours in Cinema and Photography 598 required).

An oral final examination over the M.F.A. creative thesis.

Community Development

The Master of Science degree program in community development is designed to enable students to obtain a broad understanding of the principles and practices of community development, to strengthen their ability to systematically analyze and understand processes of social change at several levels and to provide them with opportunities to develop competence in one or more of the established or emerging sub-specializations in the field. The 42 credit hour program consists of a core of required courses, a field internship, a minor concentration and a terminal masters option related to this concentration. The core courses expose all students to a common body of knowledge about the field, about social change and about purposeful strategies of change; the internship allows students to apply this knowledge in a practical community development project; while the minor concentration and terminal option sequence allows students to develop special competence related to individual career objectives in the community development field.

Prerequisites

Social Science: three college-level courses with a grade of *C* or better in at least two different disciplines.

Social Statistics: three semester hours at either the undergraduate or graduate level.

Community Development Core Requirements (28 semester hours)

CD 401, Introduction to Community Development, 3.

CD 500, Research Seminar in Community Development, 3.

CD 501, Small Group Process in Community Development, 4.

CD 502, Community and Change, 3.

CD 503, Problems of and Approaches to Community Development, 3.

CD 589, Professional Seminar in Community Development, 2.

CD 595, Internship, 5.

Terminal option: thesis, research report, extended minor or master's project. These five hours may be earned in one of the following ways:

a. CD 599, Thesis Research, 5.

b. CD 593, Individual Research in Community Development (for research report or master's project), 5.

c. Five semester hours in 400- or 500-level courses in addition to the nine hours in the regular minor (for extended minor), 5.

Other Course Requirements (14 semester hours)

a. Minor concentration. At least nine hours in 400- or 500-level courses in one or more disciplines constituting either an exceptional concentration designed by

the student and approved by the department or one of six department-designed concentrations in CD administration, education, organization, planning, research, and training.* Concentrations typically consist of approved courses outside the department, except for a CD elective required in planning and in research, or occasionally in a student-designed exceptional concentration, 9.

- b. Electives. Additional 400- or 500-level courses in minor, in elective CD courses or other departments as needed to total 14 hours outside the core requirements.

Elective Community Development Courses

Depending upon career objectives, a student may take several CD or other courses, even over and above the required 42 hours in the curriculum.

Available CD electives are:

- CD 402, Comparative Community Development, 3.
- CD 403, Citizen Roles in Human Services, 3.
- CD 404, Role Theory and Analysis in Community Development, 3.
- CD 405, Social Planning, 3.
- CD 491, Independent Study in Community Development, 1-6.
- CD 497, A-E, Seminars in Community Development, 1-12.

Field Internship

The field internship is a requirement for the M.S. degree in community development. It consists of approximately 250 clock hours of supervised work in a community development project. The objective of the program is to provide a field experience in which the intern can test and develop his skills; can demonstrate personal and professional growth and capacity for growth; and can increase his ability to reflect on and conceptualize his learning experience. CD 589, Professional Seminar in Community Development, must be taken before or concurrently with the field internship.

Terminal Options

There are four possibilities for a terminal project. They are: (1) a master's thesis, (2) a terminal research report, (3) an extended minor, and (4) a master's project. These four possibilities are described below. In each case the terminal option must be related to the student's minor concentration.

Thesis

1. General description. The thesis involves substantial new research. A research prospectus will be prepared and submitted to the student's committee for approval. Then the research will be done and the final report written. Finally, the student will be examined orally upon both knowledge of community development and the quality of the thesis.

The thesis requires a form filed in duplicate with the department specifying the student's committee and thesis topic. The original and one copy of the completed thesis are filed with the dean of the Graduate School. One copy is filed with community development and one copy is given to the chairperson of the student's thesis committee. Thus, four copies of these are required.

2. Composition. The thesis committee consists of three persons, as follows:
 - a. A chairperson from community development who is on the graduate faculty.
 - b. One member from community development who is on the graduate faculty.
 - c. One member from a department other than community development who is on the graduate faculty.

*Lists of recommended courses in these concentrations are maintained by the department.

3. Composition of the oral examination committee is the same as the thesis committee.

Terminal Research Report

1. General description. The research report may be a new work or an extension, elaboration, or broadening of a paper already done by the student. As for the thesis, a research prospectus submitted to and approved by the student's research report committee will be required before the research itself is undertaken.

The terminal research report requires a form to be filed in duplicate with the department specifying the student's committee and terminal research report topic.

One copy of the completed research report is filed with community development, one copy is submitted to the Graduate School, and a third copy is given to the chairperson of the student's terminal research report committee.

2. Composition. The terminal research report committee consists of a chairperson from community development who is on the graduate faculty, plus one of the following two options:
 - a. Two additional persons both from community development.
 - b. Two additional persons, one from community development and one from another department who is on the graduate faculty.
3. Composition of the oral examination committee. All members on the terminal research report committee serve on the orals committee. However, since the Graduate School requires three persons who are on the graduate faculty for the orals committee, it will sometimes be necessary to increase the size of the orals committee to meet this requirement. In such a case one or two persons from community development staff who are on the graduate faculty will be added to the terminal research report committee to constitute the oral examination committee.

Extended Minor (14 or more credit hours)

1. General description. To complete an extended minor, the student must take five hours of course work outside community development in addition to the normal minimum of nine hours devoted to the minor concentration. Since the student also has 5 hours which are elective, as many as 19 hours may be accumulated in an extended minor. The student must also complete a paper linking the extended minor to community development.

This minor may not be merely 14 or more hours of randomly selected courses. There must be a focus, and the focus and its validity will be developed under the guidance of the student's extended minor committee. The student will design an extended minor program complete with a list of the courses and a justification for proposing them for approval by the student's extended minor committee.

The extended minor requires a form to be filed in duplicate with the department specifying the student's committee and minor. One copy of the completed terminal option paper is filed with community development, one copy is submitted to the Graduate School, and a third copy is submitted to the chairperson of the student's extended minor committee.

Upon completion of the extended minor, the student will be examined orally for general knowledge of community development, for knowledge of the extended minor field, and for understanding of the relationship between community development and the minor field.

2. Composition. The extended minor committee will be made up of a chairperson from community development who is on the graduate faculty, one person who is on community development staff, and one person from outside community development to represent the extended minor and who is on the graduate faculty.

3. Composition of the oral examination committee. This committee will be formed in the same way as the oral examination committee for the terminal research report. All members of the extended minor committee will be on this committee. Persons from community development who are on the graduate faculty will be added as necessary to total at least three persons who are on the graduate faculty.

Master's Project

1. General description. The master's project is designed to allow the student to engage in a community development field project. The student conceptualizes, designs, and implements the project. Upon termination of the project, the student writes an analytical report on it. Examples are: consumer cooperatives, community health programs, economic development programs, human relations training laboratories.

Several of the features of the master's project which distinguish it from an internship are as follows:

- a. The student shows the major initiative in developing the project and is therefore expected to prepare a formal prospectus describing it.
- b. The project can be conceptualized as having a fairly definite structure with a beginning, middle, and end.
- c. Whereas the internship stresses learning and growth, the master's project should stress opportunity for the student to demonstrate independently a high level of professional competence in community development.

A project prospectus submitted to and approved by the student's master's project committee is required before the project itself is undertaken.

The project requires a form to be filed in duplicate with the department specifying the student's committee and the title of the project.

Upon completion of the project, the student will prepare a final report to present to the master's project committee and will then have an oral examination on general knowledge of community development and the master's project.

One copy of the final project is filed with community development, one copy is submitted to the Graduate School, and a third copy is given to the chairperson of the project committee.

2. Composition of the master's project committee. This committee consists of three persons from community development, one of whom is designated as chairperson.
3. Composition of the oral examination committee. This committee will be formed in the same way as the oral examination committee for the terminal research report. It will include all members of the master's project committee plus as many persons as necessary from community development staff who are on the graduate faculty to total three graduate faculty persons.

Oral Examination Committee

It is desirable to have the oral examination committee and the terminal option committee be as nearly as possible the same persons. Regardless of the composition of these committees, however, consensus must be reached by the orals committee on approving satisfactory completion of the general examination and terminal option.

Computer Science

The Department of Computer Science offers a graduate program leading to the Master of Science degree in computer science.

Application forms for admission to the Graduate School and thereby to the computer science program may be obtained from the Graduate School. Decisions

concerning the admission of students to and their retention in the graduate program will be made by the department faculty subject to the requirements of the Graduate School. The department does not have any specific grade point average requirement for admission beyond the Graduate School minimum, but the students' academic record will be examined for evidence that they can meet the standards required of graduate students.

An undergraduate major in computer science is not required for admission and students with majors in other fields are accepted. The student applying for admission will be expected to have completed a standard sequence in calculus. There are no other formal course requirements for admission. However it should be understood that a student with minimal background may be expected to take additional work on a deficiency basis.

Requirements

The requirements for the M.S. degree include a minimum of 30 hours of graduate credit. However, the actual number of hours which the student must take is dictated by the degree of preparation the student has at admission. The extent of this preparation is generally defined by the number of core courses (or equivalents) which the student has taken prior to admission and hence need not repeat as a graduate student in the program.

1. Core Requirements

- a. Each of the CS courses: 401, 411, 414, 430
- b. Each of the CS courses: 445, 451, 464a
- c. One of the CS courses: 470, 471, 472
- d. Mathematics 417 or 421
- e. Mathematics 480

2. Group Requirements

With respect to the following three groups of courses, the student is required to take at least six hours from one group and at least three hours from each of the remaining groups:

Group a: CS 553, 555

Group b: CS 501, 514, 516

Group c: CS 531, 536, 564

3. Other Requirements

- a. The student will be required to write a thesis or research paper carrying credit under CS 599 or CS 592. The option chosen requires department approval.
- b. At the completion of his work, the student will be given a final oral examination over his thesis and other topics.

Curriculum, Instruction, and Media

The Department of Curriculum, Instruction, and Media offers graduate programs leading to the Master of Science in Education degree in the following areas: early childhood education, educational media, elementary education, and secondary education. The department also provides courses leading to the Doctor of Philosophy degree in education (see page 59).

Requirements for admission to graduate programs are described earlier in this bulletin under the Graduate School, Master's Degree Program.

Master's Degree

The master's degree program in each of the four above concentrations requires a minimum of 32 semester hours for completion. Each candidate's program is planned through a faculty adviser and, if a specialty is involved, also in cooperation with the department of the candidate's teaching field.

The student completes a program by satisfactorily finishing all course require-

ments and passing either the oral examination over the thesis or the master's degree comprehensive examination. The comprehensive examination is scheduled to be administered on Saturday of the ninth week of each semester during the regular academic year and on Thursday of the third week of the summer session.

No more than 11 semester hours of credit earned at another college or university may be accepted toward requirements for this degree. The students' academic programs are planned in consultation with their advisers on the basis of interests, experiences, and areas of specialization. Unclassified graduate students should see the master's degree coordinator for information and advice.

EARLY CHILDHOOD EDUCATION

The master's degree program in early childhood education focuses on preschool through grade 3. Students in the program must complete at least 16 hours of course work at the 500-level and meet core requirements, research requirements, and supportive field requirements. Core requirements (15 hours) include Guidance 422 and 562A and CIM 419, 513, and 518. Research requirements (3-9 hours) include: (1) CIM 500 and a research paper or (2) CIM 599 (Thesis). Supportive field requirements of 5 hours must be course work which undergirds early childhood education and must be agreed upon by the student and the assigned adviser.

For the research requirement, a student may elect either (1) to write a research paper dealing with some aspect of early childhood education under the guidance of a faculty adviser and to take the early childhood education master's degree comprehensive examination, or (2) to write a master's thesis under the guidance of a three-person committee which includes the student's adviser and take an oral examination over the thesis given by the thesis committee.

Students desiring preschool certification must be admitted to the Teacher Education Program and follow the preschool entitlement process established for Southern Illinois University, without receiving graduate credit. Those desiring K-9 certification must also be admitted to the Teacher Education Program and complete the appropriate Teacher Education Program requirements, without graduate credit.

EDUCATIONAL MEDIA

The master's degree program in educational media requires a minimum of 32 semester hours for completion. Students may elect to write either a thesis, a research paper, or a research paper/project for the degree. Students are given a final oral examination before graduation.

For this course of study, at least 15 hours of credit must be completed in courses at the 500 level or above. The only required course is a course in research methodology. Courses are offered to meet the requirements for entitlement to the Standard Special Certificate in all area of media issued by the Illinois Office of Education. Specializations are also available in instructional development, instructional television, media production, and community college librarianship. It should be noted that in Illinois every media specialist in the public schools is also required to hold a teaching certificate.

Work taken as qualifying work for admission to the Graduate School may not be counted toward the degree program in educational media. A minimum of 16 hours counted toward the degree must be taken in the educational media program at SIU. At least 16 hours must be earned at SIU after admission to the educational media program. Work taken during the semester of admission may be included in this total upon approval of the educational media program faculty.

Courses in the administration, organization, utilization, and production of educational media are designed to train media specialists who can administer all educational materials. Courses often include laboratory work, field trips, and

practical experiences. Specialized courses in library science and audio-visual education provide a means for students to enrich their studies. Graduates of the program have been employed in elementary and secondary schools, and community colleges and in college and university teaching, industry and business, military, and religious education.

ELEMENTARY EDUCATION

Students enrolling in the elementary education master's degree program must complete at least 15 hours of course work at the 500 level and meet core requirements, research requirements, and specialization requirements. Core requirements (5-6 hours) include CIM 531 and one of the following: Guidance 422, 502, 506, 562A, and CIM 511. Research requirements (3-9) hours) are (a) CIM 500 and a research paper or (2) CIM 599 (Thesis).

For this degree a student may follow a general elementary education program or a program with a specialization in one of the following areas: language arts, mathematics, reading, science, social studies, supervision, or curriculum. A student selecting a specific program and specialization is required to have the program approved by an adviser from that area. A student who selects the area of supervision and successfully completes the M. S. degree will qualify for the General Supervisory Certificate offered through the Illinois Office of Education.

For the research a student may elect (1) to write a research paper under the guidance of a faculty adviser and to take the departmental master's degree comprehensive examination or (2) to write a master's thesis under the guidance of a three-person committee which includes the student's adviser and to take an oral examination over the thesis given by the thesis committee.

Students desiring certification for K-9 must be admitted to the Teacher Education Program and must complete, without graduate credit, a minimum of the following: Education 301, Educ. 302, CIM 312, and at least two courses selected from CIM 315, 423, 424, and 426. In addition, uncertified students must complete at least 5 semester hours of student teaching, done in residence at a college or university approved by the National Council for Accreditation of Teacher Education.

SECONDARY EDUCATION

Students who enroll in the secondary education master's degree program must successfully complete a minimum of 13 to 19 semester hours of graduate level work in education courses in those programs which involve a teaching area emphasis, plus 13 to 19 hours of graduate work in their teaching specialty. Special programs planned for those students whose previous experience or preparation or professional goals warrant special consideration must involve at least 32 hours of graduate work.

Core requirements (6 hours) are: CIM 580, and CIM 571. The research requirement consists of successfully completing CIM 500 or its equivalent during the first 15 semester hours of the program and either completing CIM 593 for 2 semester hours or writing a thesis. If students elect CIM 593, they and the professors in charge of the research agree upon the research problems and determine the conditions for completing the study. If they elect to meet the research requirement by preparing the theses, they will each be assigned a committee of three professors who will plan with them for the writing of the theses. The committee will also serve as the examination team before whom the thesis is defended. Thesis credit up to 4 hours may be granted.

The secondary education comprehensive examination is taken by those students who do not write theses. It is a two-part examination which covers (1) the area of secondary education and (2) the students' teaching specialty or special area of

concentration. The student may elect to take the examination after completion of 21 semester hours of course work.

Specialist Degree (Elementary Education or Secondary Education)

The Department of Curriculum, Instruction, and Media offers two Specialist degrees, one in elementary education and one in secondary education. These degree programs are designed for teachers and other personnel who seek specialized performances of teachers in general.

Admission. Applicants for admission to the Specialist program must meet minimum Graduate School standards for admission to and retention in the Specialist degree program. No more than 6 semester hours earned at another college or university may be accepted toward requirements for the Specialist degree. At the time of acceptance into the program, an advisory committee of three professors will be appointed to design the program cooperatively with the student, supervise the field of study, and administer a comprehensive oral examination. At least one member of this committee, the student's adviser will be from the student's area of specialization.

Program of Studies. A minimum of 30 semester hours' credit beyond a master's degree, including field work, is required for completion of the program. At least 15 semester hours must be at the 500 level. Each program requires curriculum and seminar courses from the appropriate discipline (5 or 6 semester hours), a field study (2 to 6 semester hours), and specialization hours and electives as determined by the student and the advisory committee. Prior to graduation a written report of the field study must be submitted to the committee for approval and transmitted to the Graduate School.

Early Childhood Education

(See Curriculum, Instruction, and Media for program description)

Economics

Graduate courses in economics may be taken as a major or minor leading to the Master of Arts, Master of Science, or Doctor of Philosophy degrees in economics. In addition to Graduate School admission standards, the Department of Economics requires completion of the verbal, quantitative, and advanced economics portions of the Graduate Record Examination except where it may create a hardship for international students.

Master's Degree

Either the M.A. or M.S. degree requires successful completion of 30 semester hours of graduate work. Of this total, at least 15 hours must be at the 500 level and at least 21 hours must be in economics courses. There are required courses in statistics, macro and microeconomic theory. In addition to these stipulations, the master's degree can be attained in one of three ways. A thesis may be written, for which the student may receive a maximum of 6 hours credit toward the total of 30 hours.

A second option is to include, as part of the 30 hours, Economics 510, research in economics. A third option is to take and pass the qualifying exam for the Ph.D. degree. Each of the latter two options also requires the submission of a research paper. Candidates for the M.A. degree must also demonstrate proficiency in one of the foreign languages acceptable for the Ph.D. degree at the level prescribed for

that degree. Students who intend to enter the doctoral program should take the remaining courses of preparation for the qualifying exam. These consist of the seminar in economic thought and advanced work in micro and macroeconomic theory.

Doctor of Philosophy Degree

The Ph.D. degree prepares the student for teaching and research positions in the academic world, for positions as economist in private industry, for positions with private research or consulting organizations, or for government positions requiring advanced economic training.

The degree is awarded for high accomplishment as evidenced by these steps:

1. Demonstrating proficiency in statistics as a research tool through successful completion (minimum grade of *B*) of Math 480 and 481 or Math 483 and 488 or Math 514 and 515 or Math 483 and Economics 567a.
2. Demonstrating proficiency in a second research tool chosen, with prior consent of the director of graduate studies, from one of the following:
 - a. A foreign language: proficiency as demonstrated by successful completion of the Education Testing Service Examination or by passing the appropriate foreign language 288a and b with a grade of *A* or *B* in each course.
 - b. Mathematics: completion of the second year calculus sequence, plus one additional course at the 400 level or one 300 level course selected from Mathematics 301, 305, 352. Each course must be passed with a grade of *B* or better.
 - c. Any two courses at the 400 or 500 level in an area other than mathematics that is closely related to economics and each passed with a grade of *B* or better.
 - d. Computer programming: the student should consult the director of graduate studies for the method of demonstrating proficiency.
3. Passing a written qualifying examination in economic theory and history of economic thought.
4. Passing written and oral preliminary examinations in three specialized areas chosen, with the prior consent of the director of graduate studies, from economic development, economic history, economic theory (two fields are available), econometrics, human resources, international economics, money and banking, political economy (two fields are available), or any graduate area outside economics but having a reasonable connection with economics.

Students are recommended for candidacy for the degree after they pass the preliminary examinations.

5. Completion of a dissertation based on original research and successful defense of the dissertation before a faculty committee.

More detailed descriptions of the graduate programs, as well as information on teaching and research assistantships and fellowships may be obtained from the director of graduate studies, Department of Economics.

Education

One may pursue a program of study leading to the Doctor of Philosophy degree in education through any of thirteen approved concentrations: cultural foundations, educational administration, educational psychology, elementary education, guidance and counseling, health education, higher education, educational media, measurement and statistics, occupational education, physical education, secondary education, and special education.

Students must satisfy the requirements of the Graduate School in addition to the College of Education requirements for the Doctor of Philosophy degree in education. General policies pertaining to the Doctor of Philosophy degree in education

are enumerated in this section; policies specific to each concentration are stated under each departmental heading. Educational psychology, guidance and counseling, and measurement and statistics are offered through the Department of Guidance and Educational Psychology. Cultural foundations and educational administration are offered through the Department of Educational Leadership. Elementary education, educational media, and secondary education are offered through the Department of Curriculum, Instruction, and Media. Occupational education is offered through the Department of Vocational Education Studies.

For program descriptions of Master of Science in Education degrees and Specialist degrees, the student should consult the appropriate department in this chapter.

Application

Applicants must submit the standard application materials to the Graduate School. Any data required in addition to the standard Graduate School application materials are described under the appropriate departmental headings below.

Admission and Retention

The application materials of those who meet Graduate School requirements for admission to the Ph.D. program are forwarded to the College of Education. The department concerned reviews all documents relative to the student and makes recommendation to the Graduate Affairs Committee of the College of Education; this committee makes the final admission decision. Retention standards beyond minimum Graduate School standards are established by each department or concentration.

Advisement

For each student a doctoral committee consisting of a minimum of five members is constituted and approved according to procedures described in the *Ph.D. Policies and Procedures Manual of the College of Education*. The doctoral committee also serves as the student's dissertation committee.

The program, planned to include all graduate study beyond the master's degree, should be approved at a meeting of the student's committee. The program is then forwarded to the associate dean for graduate studies in the College of Education for final approval and filing.

Program Requirements

Each doctoral student in education must successfully complete a prescribed core of eight semester hours in psychological foundations of education (Educ. 591) and in social and philosophical foundations of education (Educ. 590). For each concentration there are also basic courses, listed below under the departmental headings, which are required beyond this core.

Research Competencies. Each concentration in the Ph.D. degree in education has its own research requirement.

Preliminary Examination. All students in the Ph.D. program in education must take the preliminary examination over areas determined by the department or concentration. The examination is offered three times a year: Wednesday, Thursday, and Friday of the fifth week of each term.

A student may petition the doctoral committee for permission to take the preliminary examination after successful completion of the research requirement, successful completion of all or most of the course work, and successful completion of the doctoral seminar sequence in education. A student who fails the examination on the initial attempt may take the exam two additional times. If at that time the

student has not passed the examination, the student is dropped from the program.

Dissertation. The doctoral committee consists of a chairman who is authorized to direct doctoral dissertations and at least four others who are authorized to serve on doctoral committees. The committee is appointed by the dean of the Graduate School upon the recommendation of the associate dean for graduate studies of the College of Education. At least one member of the committee must be from a department other than that of the student and at least one member from a unit outside the College of Education.

Satisfactory completion of the dissertation requirement includes the passing of an oral examination covering the dissertation and related areas.

DEPARTMENT OF CURRICULUM, INSTRUCTION, AND MEDIA

The Department of Curriculum, Instruction, and Media offers approved concentrations in educational media, elementary education, and secondary education.

Admission and Retention. The applicant must complete the departmental application form and select one of the three concentrations with the department. A selection and review committee of that concentration will screen the applicant on the basis of prior graduate work, grade point average, standardized test scores (Miller Analogies Test or Graduate Record Examination required), work experience, and letters of recommendation. The committee recommends admission of the student only if the concentration is willing to sponsor the applicant and a faculty member who is permitted to direct doctoral dissertations agrees to serve as chairman of the student's doctoral committee.

A student accepted by one concentration who wishes to change to another must resubmit his papers to the new concentration for consideration. A committee may possibly recommend for admission a student who shows some deficiency from department standards if, in its opinion, the student shows unusual professional promise.

Inquiries regarding admission to any of the three concentrations should be directed to the chairman of the Department of Curriculum, Instruction, and Media.

Prior to the completion of 30 hours of course work, the student meets with the doctoral program chairman to determine whether or not to continue as a doctoral student. Such matters as grade point average, progress in the program, and steadfastness of desire to attain original goals are considered. A report of this meeting is sent to the doctoral committee, the department chairman, the associate dean for graduate studies, and to the student. If the program chooses not to retain the student, the reasons are specified in the report.

Research Requirements. A minimum of one research requirement is selected by the doctoral committee from the following: (1) a reading knowledge of one or more foreign languages; (2) a demonstration of competency in educational statistics or successful completion of Guid. 506 and 507; (3) a demonstration of competency in computer programming; (4) another research competency at the discretion of the doctoral committee.

Preliminary Examination. The preparation and direction of the preliminary examination are the responsibility of the concentration and the student's doctoral committee. Twelve hours of testing are required. A portion of the examination is prepared by the faculty representing the concentration and a portion is prepared by the doctoral committee. Additional oral and written examinations may be required by the student's doctoral committee or by the concentration evaluation panel.

Oral Examination. The Department of Curriculum, Instruction, and Media re-

quires an oral examination, conducted by the doctoral committee. The examination covers the dissertation and also includes questions designed to ascertain the student's general competency in his concentration and specialty area.

Oral examinations are open to all interested observers. Notice of the time and place of the examination and the abstract of the dissertation are circulated throughout the department and the university. Two copies of the abstract should be given to the associate dean for graduate studies in the College of Education.

Elementary Education

The doctoral concentration in elementary education offers a program that develops competencies for college and university teaching and research in various specializations. Requirements are balanced and flexible and utilize work in appropriate disciplines outside the College of Education.

Program Requirements. A minimum of 64 hours beyond the master's degree is required. A typical program consists of: (1) the doctoral core requirement in education (8 hours), (2) successful completion of CIM 532 (3 hours) before taking the preliminary examination, (3) completion of a minimum of 13 hours of work in the field of specialization with the concentration of elementary education, (4) at least 8 hours of cognate work which may be outside the College of Education, and (5) at least 24 hours of dissertation. The balance of the program will be in electives that have been selected to support the goals of the program.

Educational Media

The doctoral concentration in educational media is designed for those individuals who wish to become directors of educational media programs in large school systems, community colleges, colleges or universities, or industries in which the scope of the program will require, under the director, separate specialists in the audiovisual and library fields.

Program Requirements. The typical program consists of 64 semester hours above the master's degree arranged as follows: (1) doctoral seminars in education: 8 hours; (2) field of specialization: 32 hours; (3) dissertation: a minimum of 24 hours; work may be required in a cognate field or fields as a part of the 32 hour requirement.

Secondary Education

The doctoral concentration in secondary education offers a varied program to prepare the many specialties for public school teaching. The concentration also offers programs to develop competencies in college and university teaching and research in education.

Program Requirements. The typical program of studies consists of 64 hours above the master's degree arranged as follows: (1) doctoral seminars in education: 8 hours; (2) the departmental core in curriculum theory and instructional practices: 19 hours to include CIM 582, CIM 585a, CIM 585m, and CIM 586; (3) field of specialization and cognate study: 13 hours as approved by the doctoral committee; and (4) dissertation: 24 hours.

DEPARTMENT OF EDUCATIONAL LEADERSHIP

The Department of Educational Leadership participates in the doctoral program in education with approved concentrations in both educational administration and cultural foundations.

Inquiries regarding application to either program should be directed to the chairman of the Department of Educational Leadership.

Educational Administration

Admission and Retention. The following are criteria for admission to and retention in the program: (1) A graduate background, at the level of a master's degree major in educational administration, or its equivalent; (2) appropriate experience in an educational setting; (3) objective measures rated on a point scale developed by the department; i.e., graduate grade point and the Miller Analogies Test score; (4) subjective measures: recommendations from three or more persons knowledgeable of the candidate's ability to do advanced graduate work; and data gained through personal interview, if possible. An example of the writing ability of the applicant may also be required.

A minimum grade point average of 3.25 on a 4.0 scale is required for retention in the program. A student whose grade point average falls below 3.25 may take an additional nine semester hours of work if such work will correct the deficiency. If after nine hours, the student's GPA remains below 3.25, the student shall be dropped from the program.

Program Requirements. The doctoral program in educational administration normally includes a minimum of 64 semester hours of work beyond the master's degree as follows. The student is required to complete: (a) two doctoral seminars totaling eight semester hours common to all doctoral students in education; (b) a concentration of 16-22 semester hours including a required six-hour, two-course seminar in educational administration; (c) a cognate or interdisciplinary block of six semester hours which may be drawn from social and behavioral science fields as anthropology, economics, government, sociology, psychology, etc. (This work seeks to provide the student with an orientation to fields that are integrally related to educational administration); and, (d) a dissertation of 24-32 semester hours.

Research Tool Requirements. A minimum of one research competency is required of each student. Specific research competencies and procedures for evaluation are determined by the doctoral committee of each student congruent with the individual's professional preparation and goal expectations. Possible research tools might include: a statistics sequence, computer programming, foreign language(s), or other related and research oriented subjects and procedures.

Preliminary Examination. The student prepares for the examination through course work and independent study as advised by the doctoral committee. The examination covers the student's special area of concentration and research. The student's doctoral committee chairman initially solicits and compiles test questions in these areas, then meets with the department chairman to determine the completeness of the examination. If certain areas are judged to be inadequately covered, additional questions in those areas are solicited from appropriate staff members. Individuals submitting questions are responsible for evaluating the student's responses to such questions, although the entire examination is available to the total examining committee. After the evaluations, the entire examining committee meets to determine whether the student has passed part or all of the examination. If certain specialty responses are judged inadequate, the examining committee may require the student to re-write in the deficient area or to submit to an oral examination in the specialty.

Cultural Foundations

Admission and Retention. The admissions criteria include grade point averages,

Miller Analogies Test scores, letters of recommendation, and work experience. Students shall ordinarily have completed at least two years of successful teaching experience in the public schools, or its equivalent as determined by the foundations committee. If this requirement has not been fulfilled, the committee may make arrangements for a special internship program.

A GPA of at least 3.25 on the first 20 semester hours of course work is required for retention. This average must be maintained to program completion.

Program Requirements. The student is required to complete a program of at least 70 semester hours beyond the baccalaureate degree, not including 24 hours used in dissertation research. The program must meet the following minimal pattern: (1) 14 hours of professional education courses, including Education 590 and 591; (2) 24 hours in a specialization; philosophy of education, history of education, comparative and international education or educational sociology; (3) nine hours each in two minor areas selected from: philosophy of education, history of education, comparative and international education, and educational sociology; and (4) 14 hours of elective courses as determined by the sponsoring committee with the cooperation of the student.

Research Requirements. Each student must demonstrate research competence in one or two areas determined by the student and the committee. This might consist of the course sequence in statistics, foreign languages, historiography, etc.

Preliminary Examination. After the student has completed the doctoral seminar sequence, the research competencies, and made up any deficiencies indicated by the student's doctoral committee, the preliminary examination may be taken during the final term of course work or upon successful completion of 36 semester hours beyond the master's degree.

Materials to assist the student studying for the preliminary examinations may be secured from the faculty members asking the questions for the examination. These materials might include a bibliography or some suggestion of those areas the faculty member would hold to be essential to an understanding of that area of the cultural foundations of education.

The examination consists of six hours of written examination administered over two days, and two hours of oral examination. The written examination consists of two three-hour parts. Part one is from the student's principal specialization within cultural foundations of education and part two consists equally of questions from the student's two minor areas. The foundations committee determines who shall write the questions. Faculty members designing questions shall evaluate the responses and state the reasons for their acceptability or unacceptability. The oral examination committee consists of the faculty members writing questions and may also include members of the student's doctoral committee.

The oral examination is administered by the examination committee within two weeks after the written examination; the exact time is determined by the doctoral chairman with the consent of the oral examination committee. The oral examination has the following purposes: (1) To provide the members of the committee the opportunity to seek further evidence of the student's competence in three areas of foundations and in any other area deemed important by the members of the examination committee; (2) To clarify issues or responses raised by the written examination.

A student receiving an evaluation of unacceptable on any one part of the written examination may confer with the committee chairman and the evaluator of the question to determine further action, which might include a re-examination of the area judged unacceptable or the design of a special program to correct the student's deficiencies. Failure of the committee chairman and the evaluators to agree will be resolved by the foundations committee.

Failure to pass two or more parts of the written examination or the oral examination constitutes an overall rating of unacceptable. The foundations committee then decides what action shall be taken in regard to the student.

DEPARTMENT OF GUIDANCE AND EDUCATIONAL PSYCHOLOGY

The Department of Guidance and Educational Psychology offers approved concentrations in educational psychology, guidance and counseling, and measurement and statistics.

Application. Inquiries regarding admission to any of the three concentrations should be directed to the chairman of the Department of Guidance and Educational Psychology.

Admission and Retention. The applicant must complete the department form and select one of the three concentrations within the department. A selection and review committee of that concentration will screen the applicant on the basis of prior graduate work, grade point average, standardized test scores (usually the Miller Analogies Test or the Graduate Record Examination), and letters of recommendation. A student accepted by one concentration who wishes to change to another must re-submit these papers to the new concentration for consideration.

A student will not be permitted to take the preliminary examination unless a 3.25 grade point average is maintained in courses taken as a part of the doctoral program. Any student who has a grade point average below a 3.25 after 20 semester hours of doctoral level work, and before passing the preliminary examination, will not be allowed to continue in the program, nor will the student be considered for readmission at some later date. All students will be required to participate in teaching or research experiences as a part of their program without credit.

Program Requirements. Each doctoral student in the department must demonstrate competence in each of the three core areas by successfully completing specified courses: a. measurement and statistics (Guid. 506, 531); b. educational psychology (Guid. 511); and c. personality theory and human dynamics (Guid. 570).

Students may request proficiency credit for the competencies from the department chairman. The awarding of such credit will be determined by: (a) examination; (b) consideration of previous courses taken; (c) interview; (d) some other appropriate method; or (e) any combination of the above. The final decision is at the discretion of the department chairman.

Research Requirements. Research competencies are attested by course work in the three core areas, as described above, under program requirements. Additional research competencies may be required by the student's doctoral committee.

Preliminary Examination. In addition to the core and doctoral seminar in education requirements, students must demonstrate competency in their chosen concentrations. Expectations and specific requirements of the preliminary exam are developed by the students and their doctoral committees. Students must file a petition requesting permission to write the preliminary examination with the department chairman at least two weeks prior to the date the examination is to be taken.

Educational Psychology

Students in the concentration of educational psychology will be expected to demonstrate competencies in the following areas:

Competency	Suggested Activity
Statistics/Measurement	Guid. 507/531

Research Methodology	Guid. 567 — when the topic is research design
Learning and Instruction	Selected Courses
Development and Human Dynamics	Selected Courses
Specialization Area	Self-Study/Selected Courses Practicum Experiences/Dissertation (24 hours)

The doctoral committee, in consultation with the student, will determine the means for demonstrating competence and the criteria for successful mastery.

Preliminary Examination. The preliminary examination will be prepared by the doctoral committee of the student. The exam will be composed of questions regarding findings, theory, research methodology; and application in the following areas: learning and instruction, development and human dynamics, comprehensive examination in the student's specialization. The nature of the examination (e.g., timed paper and pencil test, qualifying paper, project, oral examination, experimental or theoretical paper) is to be determined by the student and the committee with the stipulation that some product must be generated, evaluated, and placed in the student's permanent records.

Upon successful completion of the preceding, the student's doctoral committee will make a recommendation regarding admission to candidacy. The recommendation must be filed with the associate dean for graduate studies within two weeks following the written examination.

Guidance and Counseling

Student programs of studies in guidance and counseling are individually designed. Consequently, the requirements include only:

1. Completion of the core requirements (Guidance 506, 511, 531, and 570).
2. The required dissertation credits, of which 24 hours will be the maximum. However, to encourage a broad academic base in the specialty, students typically complete the following courses:
 - a. Those courses required in the guidance and counseling master's program or their equivalent if they have not already been completed;
 - b. Eight to twelve hours of electives outside of the department but related to the specialty;
 - c. At least 6 hours in Guidance 568, topical seminar in guidance and counseling;
 - d. Three hours in Guidance 551, the supervision of practicum.
 - e. Six hours in Guidance 594, internship (advanced practicum) in guidance and counseling.

Preliminary Examination. The guidance and counseling concentration faculty will prepare and evaluate a comprehensive exam not to exceed 8 hours in length. If the student's doctoral committee feels that additional evaluation is necessary at the time of the comprehensive examination, the nature of the additional evaluation will be determined by the student's doctoral committee.

Measurement and Statistics

All programs in measurement and statistics must include: 1. a minimum of 12 hours in Guid. 580; 2. a minimum of 3 hours of electives outside of the department but related to the specialty; 3. a maximum of 24 hours of dissertation credit.

Preliminary Examination. The preliminary examination will consist of three

parts: a core examination in measurement (4 hours), a core examination in statistics (4 hours), and a specialty examination. The first two examinations are prepared and evaluated by the full-time statistics and measurement faculty. The specialty examination is prepared and evaluated by the student's doctoral committee. An oral examination over the preliminary examination is conducted within three weeks of the written examination by the doctoral committee.

DEPARTMENT OF HEALTH EDUCATION

The Department of Health Education participates in the doctoral program in education with a concentration in health education.

Inquiries regarding application should be directed to the chairman of the Department of Health Education.

Admission Requirements

1. Applicants for the Ph.D. with a specialization in school health or safety education should have met requirements for a teaching certificate. Exceptions to this rule may appeal to the academic affairs committee of the department.
2. Applicants for the Ph.D. with a specialization in community health education are expected to have community health work experience. Exceptions to this rule may be appealed to the academic affairs committee of the department.
3. Applicants for the Ph.D. degree must have a minimal over-all grade point average for all preceding graduate work of 3.25 (based on 4.0 as an A).
4. Acceptance into the doctoral program will be based upon undergraduate grade point average, graduate grade point average, past experience, score on Miller Analogies Test and letters of recommendation.

Retention. Students must have a grade point average of 3.50 for all doctoral program work to qualify to take the preliminary examination.

Any prospective doctoral candidate with a grade point average of less than 3.25 after 24 semester hours of doctoral work will not be allowed to continue in the program or be readmitted at a later date.

Program Requirements. Other than general requirements of the Graduate School for all Ph.D. degrees and of the College of Education for all Ph.D. degrees in education, the Department of Health Education requires satisfactory completion of H.Ed. 533A and 533B and Health Education 597A and 697B. Individual programs are developed for each student.

DEPARTMENT OF HIGHER EDUCATION

The Department of Higher Education participates in the doctoral program in education with a concentration in higher education.

The doctoral program offers pre-service and in-service preparation for current and prospective administrators and teachers in two-year colleges and universities and related post-secondary educational institutions.

Currently the graduates of the doctoral program occupy administrative and teaching positions in more than fifty higher education institutions and related agencies.

Application. Inquiries regarding application for admission to the program should be directed to the chairman of the Department of Higher Education. In addition to the application to the Graduate School, the applicant must also submit the depart-

mental application form, an autobiographical statement, at least three letters of reference (special form provided), and test results from either the Miller Analogies Test or the Graduate Record Examination.

Admission and Retention. Each applicant is evaluated on an individual basis with much consideration being given to evidence indicating the applicant's commitment to higher education as a field of study and as a career. Each applicant should plan to visit the campus and interview members of the faculty of the Department of Higher Education. Each application is acted upon by the departmental doctoral admissions committee, the faculty of the department, and the graduate affairs committee of the College of Education.

The records of each doctoral student are reviewed annually by the student's doctoral committee to determine whether the student should continue in the program.

Program Requirements. In addition to the College of Education requirements, the following special minimal departmental requirements should be noted. Additional requirements may be established by the student's doctoral committee.

Core Courses — 16 semester hours

Hi. Ed. 510-3 Higher Education in the United States

Hi. Ed. 518-3 College Teacher and College Teaching

Hi. Ed. 550-2 Higher Education Seminar III

Hi. Ed. 589-2 Higher Education Research Seminar

Two courses (6 semester hours) chosen from the following five courses:

Hi. Ed. 513-3 Organization and Administration of Higher Education

Hi. Ed. 516-3 College Students and College Cultures

Hi. Ed. 525-3 Philosophy of Higher Education

Hi. Ed. 521-3 Curriculum Design and Policy

Hi. Ed. 528-3 Finance in Higher Education

Program Emphasis. Minimum of 16 semester hours. Each student, in collaboration with and concurrence from the doctoral committee, determines the student's program of courses, which may include work from other departments. An internship may be required if the applicant has not had previous professional experience in higher education.

Dissertation. A minimum of 24 semester hours of dissertation credit is required.

Research Requirements. The Ph.D. degree in education is a research oriented degree. The student must demonstrate competency in one or more research areas selected in collaboration with and approval of the doctoral committee. The research competencies should be related to the type of dissertation that is to be submitted and may include such skills as statistics, computer programming, historiography, and an appropriate modern foreign language. The student's doctoral committee in cooperation with other units of the university must certify the student's competency. The dissertation is the scholarly study of an appropriate topic approved by the doctoral committee.

Preliminary Examination. The preliminary examination in higher education is a comprehensive written examination prepared each semester by a special examination committee of the graduate faculty members in the department. The student may also be asked to complete successfully an oral examination. Students may petition their doctoral committee to take the examination when they have successfully completed the research competency requirement, the doctoral seminars, and all or most of the course work listed on the approved program.

DEPARTMENT OF PHYSICAL EDUCATION

The Department of Physical Education participates in the Doctor of Philosophy degree in education with a concentration in physical education.

Inquiries regarding application should be directed to the chairperson of the Department of Physical Education.

Admission and Retention. The applicant must possess a background of knowledge of, and experience with, physical education which will provide a basis for advanced work in this field. The student's experience and interests as well as formal education are considered before deciding the deficiencies and the manner of satisfying them. Credit for work done to satisfy deficiencies will not count toward the Ph.D. degree.

A grade point average of 3.50 is required in courses taken as part of the doctoral program. If at any time the grade point average is less than 3.50, the student will confer with the chairman of the doctoral committee concerning the probability of future success in the program.

A minimum of one year of teaching experience will be required. The adequacy of the experience will be judged by the student's doctoral committee.

Program Requirements. A minimum of 96 credits beyond the bachelor's degree is required as follows:

1. 36 semester hours in physical education courses beyond the bachelor's degree composed of a. 20 credits in physical education for the master's degree major, approved by the student's doctoral committee, and b. 16 credits in approved physical education beyond the master's degree.
2. 36 semester hours in any subject area including course work required of all students by the College of Education.
3. 24 semester hours of dissertation.

Research Requirements. At least one research competency, determined by the student's doctoral committee and approved by the associate dean for graduate studies, is required. Research competencies embody skills needed to understand research in the student's field, to carry out the dissertation, and to contribute to the specialization.

Preliminary Examination. The student must meet the following conditions satisfactorily before applying to the student's doctoral committee to take the preliminary examination: 1. completion of a minimum of 64 hours of course work beyond the bachelor's degree; 2. completion of the courses required of all Ph.D. students by the College of Education; 3. completion of other courses as prescribed by the student's doctoral committee, 4. completion of the research competency.

These examinations will pertain to: the objectives of course work required of all students in the College of Education and to the concentration of physical education.

DEPARTMENT OF SPECIAL EDUCATION

The Department of Special Education participates in the doctoral program in education with a concentration in special education. Inquiries regarding application should be directed to the chairman of the department.

Admission and Retention. The applicant should possess the following qualifications:

1. A bachelor's and master's degree, one of which is in special education, or a

bachelor's and master's degree, one of which is in general education plus at least five college courses in special education (excluding speech correction or school psychology).

2. A minimum of three years of school or approved related experience with exceptional children, with at least two of these in direct pupil contact.
3. At least one previous degree from an institution other than Southern Illinois University at Carbondale.
4. A minimum grade point average of 3.25 for course work completed while acquiring the master's degree.

The following information must be submitted by the applicant to the graduate faculty:

1. Results of the verbal and quantitative tests of the Graduate Record Examination.
2. Five letters of recommendation from professional associates including one from current or most recent employer, and two from previous graduate level instructors.
3. Evidence of writing ability (e.g., master's paper).
4. A short autobiography.

In addition to the above, a personal interview must be arranged with designated faculty members in the Department of Special Education. Any deviation from these requirements must be approved by the graduate faculty of the department. The graduate faculty of the department will evaluate the data and information. It will then make its decision regarding the admission.

Retention in the doctoral program is contingent upon satisfactory performance of a number of tasks as specified in the general requirements for all students in the Ph.D. degree in Education program. Additional conditions are imposed by the Department of Special Education and are as follows:

1. In addition to maintaining a 3.25 grade point average for the first 24 hours of doctoral course work, the student must maintain a cumulative grade point average of 3.25 for all work completed before the preliminary examination (approximately the first 36 hours of doctoral course work) and will not be admitted to the preliminary examination unless this average has been maintained.
2. All special education doctoral students are required to work in departmental teaching or research activities for a minimum of five clock hours per week during each term of their full time enrollment. A total of one to six semester hours of academic credit is granted for these practicum activities. The purpose of this requirement is to provide an opportunity for the doctoral student to participate in progressively more responsible professional activities under the supervision of the departmental faculty.
3. The graduate faculty of the Department of Special Education meets at least once each term to review the progress of all doctoral students. It is the responsibility of the student's doctoral committee and departmental graduate faculty to determine whether or not the student is making satisfactory progress in the program. If the student is not making satisfactory progress, it is the responsibility of the student's doctoral committee and the departmental graduate faculty to determine whether the student should be dropped from the program or allowed to continue on a conditional basis.

Program Requirements. All students must complete the College of Education doctoral seminar plus the following 8 semester hours of course work: Sp. Ed. 582-2, post-master's seminar: remedial models in special education; Sp. Ed. 583-2, post-master's seminar: program coordination in special education; Sp. Ed. 584-2, doctoral seminar: research in special education; and Sp. Ed. 585-2, doctoral seminar: evaluation in special education programs.

Students also must complete a minimum of 20 semester hours, approved by their committees, from specific courses in the Departments of Educational Leadership; Guidance and Educational Psychology; Curriculum, Instruction, and Media; Psychology; Rehabilitation; Sociology; and Special Education.

Research Requirements. No single research competency is required for every student. The doctoral committee aids the student in selecting a research requirement(s) that facilitates the specific research skills the student needs.

Preliminary Examination. The content of the special education preliminary examination includes (1) historical facts in the development of educational programs for the handicapped, (2) administrative and theoretical issues related to the education of the handicapped, (3) the design and conduct of experiments related to the education of the handicapped, and (4) the planning of educational programs for the handicapped. Examination questions are submitted by the members of the doctoral committee and the departmental graduate faculty. It is the responsibility of the doctoral committee to determine the adequacy of the student's responses to the preliminary examination.

DEPARTMENT OF VOCATIONAL EDUCATION STUDIES

The Department of Vocational Education Studies participates in the doctoral program in education with a concentration in occupational education.

Inquiries regarding application should be directed to the coordinator of graduate studies, Department of Vocational Education Studies.

Admission and Retention. Admission to the concentration is determined by screening committee composed of a minimum of three members of the graduate faculty of the department, and is based on the following criteria: (1) the nature and quality of previous graduate study, (2) the quality of previous written work, (3) the quality and variety of previous employment, (4) letters of recommendation relative to professional and academic competence, (5) the employment potential of the applicant upon completion of the program, and (6) personal interview, if possible.

Program Requirements

Doctoral seminar sequence in education	8 hours
Occupational Education	15 hours
VES 564-3, VES 576-3, VES 594-3, VES 580-3, and VES 584-3	
Supportive studies (student completes one)	9 hours
Management specialization	
Professional development specialization	
Research specialization	
Internship (related to the specialization)	8 hours
Dissertation	24 hours
	—
Total	64

Research Requirement. The student must demonstrate competency in educational statistics or demonstrate competency in computer programming or complete two doctoral courses in statistics, i.e., Guidance 506-4 and 507-4.

Preliminary Examination. The examination will ordinarily consist of two sessions: (1) a written examination of approximately four hours focusing on the departmental core work, prepared and evaluated by the faculty of Occupational Education in the Department of Vocational Education Studies, and (2) a written

examination of approximately four hours duration, which focuses on the student's supportive studies, including the specialty work, prepared and evaluated by the student's doctoral committee. An oral component in the preliminary examination is optional with the doctoral committee.

Those students who fail all or any part of the examination on the initial attempt may repeat that part(s) two additional times. If, at that time, the students have not passed, they will be dismissed from the program.

Educational Administration

(see Educational Leadership for program description)

Educational Leadership

The Department of Educational Leadership offers an approved program in educational administration leading to the Master of Science in Education degree. It also administers the program in educational administration leading to the Specialist degree and provides programs and personnel for doctoral students who wish to specialize in educational administration and cultural foundations. Programs at all levels are NCATE approved. Interested applicants should direct inquiries to the chairman of the department.

Faculty from the Department of Educational Leadership in cooperation with faculty from other departments offer courses in adult and community education. Inquiries about these courses should be directed to the chairman of the Department of Educational Leadership.

Master of Science in Education Degree

At the master's level, concentrations are offered in educational administration, instructional supervision, and adult education.

EDUCATIONAL ADMINISTRATION

Within the administration concentration, specializations may be selected for certificated positions such as elementary principal, secondary principal, curriculum coordinator, school business manager, vocational-technical director, and for a variety of positions in other educational institutions and settings. A minimum of 32 semester hours is required.

Admission criteria include undergraduate grade point average, work experience, letters of reference from persons knowledgeable of the candidate's ability to do graduate level work, and data gained through a personal interview with the candidate.

The program for the Master of Science in Education degree with a concentration in educational administration includes a basic core: administration, EDL 501 and 503; research and tool subjects, EDL 500, GUID 502, and EDL 593; a foundations course (e.g., EDL 430, 432, or 454); and a course in curriculum (e.g., EDL 511, CIM 531, or CIM 571). Elective courses are determined by the student and the adviser, dependent on the student's specialization. A research report and comprehensive oral examination are also required. It is recommended that an applicant seeking administrative certification in the public schools have at least two years of successful teaching experience prior to or concurrent with the program.

INSTRUCTIONAL SUPERVISION

Regulations for the master's degree with a concentration in instructional supervi-

sion parallel those for the concentration in educational administration. Students in this area normally select specialized courses in supervision and curriculum appropriate to their goals as supervisors, (e.g., elementary, secondary, or both). The department encourages a cross-departmental approach in the selection of appropriate courses for individual programs.

ADULT EDUCATION

A basic core representing a minimum of nine semester hours of all course work is required. These courses are: Ed.L. 431, Workshop in Adult and Community Education, Ed.L. 465, Organization and Administration of Adult and Community Education Programs, and Ed.L. 500, Educational Research Methods (or its equivalent). The remaining course work to satisfy the thirty (30) semester hour degree program may be selected from one of the following areas of specialization: administration, classroom instruction, and continuing education in post-secondary institutions. The specific program of courses is arranged in consultation with the graduate adviser.

Specialist Degree

The specialist degree program is structured on a 30 semester hour sequence which requires: six semester hours in advanced administration seminars, EDL 551 and 553; four semester hours in an administrative internship, EDL 595; and three semester hours in independent investigation, EDL 596; and additional elective courses, totaling a minimum of 17 semester hours. These elective courses are determined by the student and advisory committee, dependent on the student's specialization. A comprehensive oral examination is also required.

Candidates seeking the Illinois superintendency endorsement (level III) are required to have a minimum of nine semester hours in foundations in their total graduate program and six semester hours in cognate areas such as anthropology, economics, government, sociology, psychology, etc.

Admissions criteria include a minimum graduate grade point average of 3.25 on a master's degree or its equivalent, scores from the Miller Analogies Test, appropriate work experience, letters of reference from persons knowledgeable of the candidate's ability to do advanced graduate level work, and data gained through personal interview with the candidate.

This program is based on the supposition that the applicant has a master's degree or its equivalent in educational administration. Students entering the program without this previous administration training will be required to complete prerequisite work as determined by the student's committee.

Educational Media

(see Curriculum, Instruction, and Media for program description.)

Elementary Education

(see Curriculum, Instruction, and Media for program description.)

Engineering

Graduate programs leading to the Master of Science degree in engineering are available for three concentrations in three engineering departments: electrical

sciences and systems engineering, engineering mechanics and materials, and thermal and environmental engineering. Course offerings and research activities within the departments include:

ELECTRICAL SCIENCES AND SYSTEMS ENGINEERING

Topics include: circuits, electronics, digital systems, energy conversion, bio-engineering, systems analysis, and design, controls, instrumentation, and electromagnetics.

ENGINEERING MECHANICS AND MATERIALS

Topics include: viscous and inviscid flow, compressible flow, wave motion, turbulence, numerical fluid dynamics and solid mechanics, continuum mechanics, materials science, experimental stress analysis, stability, photo-elasticity, structural analysis, and structural design.

THERMAL AND ENVIRONMENTAL ENGINEERING

Topics include: air pollution control, water quality control, thermal pollution, mass and heat transfer, thermal science, thermal systems design, and chemical processes.

A student who is interested in graduate studies in engineering, should seek admission to the Graduate School and acceptance in a degree-program by one of the three engineering departments. The applicant must have a bachelor's degree with a major in engineering, mathematics, physical science, or life science with competence in mathematics. A student whose undergraduate training is deficient may be required by the department to take coursework without graduate credit.

A program of study will be developed by a graduate adviser and the student. Each student is required to concentrate in one of the branches of engineering, but with the approval of the graduate committee, may also take courses in other branches of engineering or in areas of science and business, such as physics, geology, chemistry, mathematics, life science, or administrative sciences.

For a student who wishes to complete the requirements for the master's degree with a thesis, a minimum of 30 semester hours of acceptable graduate credit is required. Of this total 18 semester hours must be earned within the major department. Each candidate is also required to pass a comprehensive examination covering all of the student's graduate work, including thesis.

If a student prefers not to do a thesis, a minimum of 36 semester hours of acceptable graduate credit is required. In this non-thesis option, students are expected to take at least 21 semester hours of acceptable graduate courses within the major department, including 3 semester hours of the appropriate 592 course which could be devoted to the preparation of a research paper. In addition, each candidate is required to successfully complete (a) a research paper, and (b) a written comprehensive examination.

Each student in this non-thesis option will select three engineering graduate faculty members to serve as an examining committee, subject to approval of the chairman of the department administering the concentration. This committee will consist of two members from the department in which the student is concentrating plus one member from one of the other two engineering departments and will:

1. approve the student's program of study
2. approve the student's research paper topic
3. approve the completed research paper
4. administer and approve the written comprehensive examination.

Teaching or research assistantships and fellowships are available for qualified

applicants. Additional information about programs, courses, assistantships and fellowships may be obtained from the School of Engineering and Technology or any one of the three engineering departments.

Engineering Biophysics

Interdisciplinary graduate work leading to a Master of Science degree in engineering biophysics builds upon an interdisciplinary undergraduate program at SIU, which has its core in the areas of chemistry, engineering, mathematics, physics, physiology, psychology, and speech pathology and audiology. The graduate program provides the student with the unique opportunity to work with the faculty and facilities in increasingly integrated areas throughout the University and to specialize in solving problems of biomedical physics that involve several academic and professional disciplines.

The engineering biophysics committee, appointed by the dean of the Graduate School, is the agency that evaluates the program and recommends policy for its development. The committee appoints an administrator who is responsible to it and to the student for the daily as well as long-run activities of the program. The committee has a chairman and it sees that the program is administered in accordance with the policies established by that committee and with the policies of the graduate council and the dean of the Graduate School.

Admission to the Program

1. A student must apply and be admitted to the Graduate School, even if continuing from the four-year program at SIU.
2. A bachelor's degree from any of the behavioral, life or physical sciences, engineering, or mathematics serves as a minimum requirement for admission. A very favorable route is by following the prescribed interdisciplinary curriculum of the four-year undergraduate program in engineering biophysics at SIU at Carbondale, or its equivalent elsewhere.

Tool

No demonstration of language competency is required for the master's degree. The student is urged, however, to acquire a reading knowledge of French, German, or Russian in his undergraduate experience.

Core Requirements and Internship

The year of work at the graduate level emphasizes courses in physiology, psychology, and speech pathology and audiology. These core-area requirements amount to 19 semester hours and include courses in medical instrumentation, neurophysiology and pathology, sensory processes, systems and simulation, human engineering, statistics, and seminar. The courses provide a basis for internships in hospitals and in laboratories in industry and government. The internship is a requirement of the graduate program for which six semester hours of credit are allowed. The internship might well be accomplished in the summer session of the graduate year. Three elective courses at the graduate level make up additional requirements for completing the degree.

English

The Department of English offers programs leading to the Master of Arts and the Doctor of Philosophy degrees in English. Students enrolled in a program leading to the Master of Science in Education degree in secondary education or higher education may take courses in English to satisfy requirements for the teaching specialty.

Students enrolled in the Ph.D. degree in education program may take courses in English for the elective portion of the program, when permitted by the specific department participating in the degree.

Admission

Students seeking admission to a graduate program in English must meet requirements for admission to the Graduate School and must be approved for admission by the Department of English.

In addition, students seeking admission to the Doctor of Philosophy program must present a score of the 70th percentile or above in the advanced section of the Graduate Record Examination.

Information about admission to graduate programs in English may be obtained by calling (618-453-5321) or writing the director of graduate studies, Department of English, Southern Illinois University, Carbondale, Illinois 62901.

Transfer Credit

Within limits imposed by the Graduate School, transfer credits will be accepted by the Department of English subject to the following restrictions:

The student must petition the director of graduate studies indicating the number and level of hours being submitted for credit, where and when the course was taken and the grade. As nearly as possible the course to be transferred should be equated with a course offered by the SIU Department of English. The student will then be assigned to the appropriate faculty member, who will examine the student over the material of the course and recommend whether the transfer credits should be accepted and whether the course satisfies distribution requirements of the department. The director of graduate studies will act on the recommendation and forward it to the proper authorities.

Retention

In the entire graduate program, the student may accumulate up to 3 hours of work below *B*, so long as a 3.0 M.A. or 3.25 Ph.D. average is maintained. If the student has accumulated more than 3 hours, but fewer than 10 hours, of grades below *B*, these must be replaced by an equal number of hours of *A* or *B* in addition to maintaining the required average. In effect, that is, the minimum number of semester hours of course work may be increased from 30 to a maximum of 36. A student who accumulates more than 9 hours of *C* will be dropped from the program.

A student who is granted a deferred or incomplete grade must complete the work by the end of the next term in residence. Exception to this rule will be made only in a very special case and must be made through petition to the graduate studies committee. A student who has accumulated more than 6 hours of such work will not be allowed to register for more course work until the total of deferred work is reduced to not more than 3 semester hours. Deferred or incomplete work will be regarded as finished when a student has submitted all exams, papers, etc., to the instructor. Deferred or incomplete grades in English 595 or 600 are not included in the above regulation.

Coursework

A student may offer work from outside the department (in a single field or in two or more related fields) toward either the Master of Arts or the Ph.D. degree, provided that the work does not interfere with regular requirements of the Department of English and has relevance to his program.

Master of Arts Degree

The Master of Arts degree program in English requires satisfactory completion of 30 semester hours of which 15 must be earned in 500-level courses.

The program, broad rather than concentrated, requires students to:

1. Complete as a graduate student a 3-hour course in each of the following periods of English literature: before 1500, 1500-1660, 1660-1800, 1800-1885; one 3-hour course in American literature before 1900 and one 3-hour course in either modern American or modern British literature.
2. Pass a comprehensive examination over a reading list that touches all literary periods.
3. Complete one course in the English language or one in English linguistics.
4. Satisfy a foreign-language requirement by either (a) passing a reading examination set by the Department of English or (b) presenting two years or the equivalent of college-level study in a foreign language with an average of *B'* or better for the work.
5. Submit to the Graduate School through the Department of English a copy of one of their research papers graded *B* or *A*.
6. Complete (but only if a graduate assistant) English 585 or 581, as designated by the department.

Doctor of Philosophy Degree

Students must apply formally for admission to the Doctor of Philosophy degree program, including students who have earned a master's degree at Southern Illinois University.

A full-time student holding a master's degree can complete the doctoral program in two years, though most prefer three.

After a period of study in the doctoral program the student may take preliminary examinations over the selection of areas in English and American literature that have been approved by the student's advisory committee. If the person passes the examinations, the department will recommend the student to the Graduate School for admission to candidacy. The candidate is then expected to write an acceptable dissertation and to defend it in an oral examination touching his thesis and major field of study.

The program stipulates no number of classroom hours; students take the courses they need and present themselves for examination when ready. If they do not hold a Master of Arts degree in English from Southern Illinois University, they may be asked to complete any important omissions from its prescriptions.

As graduate or undergraduate, a student will be expected to have completed courses in Chaucer, Shakespeare, and Milton. As a graduate, the student must have earned *B* or better in one course in the English language and one course in English linguistics except where this requirement asks for repetition of identical work.

Tool Requirements. By one of the following three options a student must show command of certain means of research:

1. Pass (or have passed for the M.A.) reading examinations in two languages other than English. Under prescribed conditions a foreign student may present his native language, but will be required to demonstrate oral and written fluency in English. The director of graduate studies in English must approve all languages proposed.
2. Pass a reading examination and present two upper-level or graduate courses with grade of *B* or better in one foreign language or its literature.
3. Pass a reading examination in one foreign language and present two courses numbered 400 or above with an average grade not lower than 3.0 in a discipline related to the student's own research in English. The related discipline should provide a special research technique or collateral field of knowledge.

Preliminary Examinations. Students on a fellowship or a graduate assistantship

will be expected to take preliminary examinations no later than two and three years, respectively, after receipt of their M.A.

Preliminary examinations are prepared and graded by the student's advisory committee, and will cover three areas. A major-area examination consists of one six-hour written exam, and the minor-areas of two three-hour written exams. Preliminary examinations will be given only twice in a single term.

At the discretion of the committee, a two-hour oral examination will follow the decision on the three written examinations.

English as a Foreign Language

(see Linguistics for program description)

Foreign Languages and Literatures

The Department of Foreign Languages and Literatures offers graduate programs leading to the Master of Arts degree in French, German, or Spanish. A student whose degree program makes provision for a graduate minor may follow a program of study leading to a minor in these same subjects as well as in Russian.

Students may complete requirements for a teaching specialty in French, German, Russian, or Spanish for the Master of Science in Education degree in secondary education or in higher education.

Students seeking the Master of Arts degree will be governed by the policies of the Graduate School with respect to admission, minimum credit hours, scholastic attainment, residence, and maximum time limits for completion of the program.

Admission

In addition to meeting requirements of the Graduate School, the applicant for admission to the programs in the Department of Foreign Languages and Literatures should hold a bachelor's degree with a major or at least 18 semester hours (27 quarter hours) of courses on the junior-senior level in French, German, or Spanish. Students who meet requirements for admission to the Graduate School but do not meet departmental requirements may register as unclassified students for specific graduate courses in the department only with consent of the instructor and authorization from the head of their language section.

Requirements

Students who have been admitted to graduate study will plan their courses of study in periodic consultations with their graduate advisers. During such consultations, each student will decide upon either a thesis or a non-thesis (i.e., research-paper) program. This decision should be made before the end of the second semester of study. Students deciding to submit the research paper must take the appropriate course (FL 566, 567, 568, or 569) in bibliography and research techniques.

Students choosing to write a thesis will register for the thesis course (599), which provides from two to six semester hours of credit. Regardless of whether the thesis or non-thesis program is chosen, every candidate must pass a comprehensive written examination and a final oral examination at a time specified by the language section. For the student writing a thesis this final oral examination is primarily a defense of the thesis.

Master of Science in Education

The Master of Science in Education degree in secondary education with a teaching specialty in French, German, Russian, or Spanish requires a minimum of 30 hours,

at least 13-17 semester hours in the subject-matter area and 13-17 semester hours in secondary education. The Master of Science in Education degree in higher education with a teaching specialty in one of these foreign languages requires at least 20 semester hours in the subject-matter and 12 semester hours in higher education.

Further details as to specific requirements will be found in the respective program descriptions. For either degree, if the teaching specialty is Russian, Russian 515 is required.

FRENCH

The program of study leading to the Master of Arts degree in French is planned to afford a comprehensive overview of French literature and the structure of the French language. The student is expected to pursue a course of study which will provide some knowledge of all the historically important movements and figures in the literature as well as a special competence in an area of concentration selected by the student in consultation with the appropriate graduate adviser.

Each student's program must include French 412, history of the French language. The student must demonstrate proficiency in a second foreign language by passing an examination in that language or by successfully completing approved course work in the language.

GERMAN

A student seeking a Master of Arts degree in German may concentrate in either German language and linguistics or in German literature; a minor must be completed in the other of these two fields. Courses required of all students in German:

1. FL 567, bibliography and research techniques in German (must be taken the first time it is offered after a student's first semester of graduate study)
2. German 413, history of the German language
3. One course in an older period of a Germanic language: German 510, middle high German, is recommended, but alternative courses could be: German 512, English 501-502, English 503. In addition, German 412, contrastive analysis: English and German, is strongly recommended for prospective teachers of German.

Each student will be required to demonstrate, by examination, an acceptable reading knowledge of a second foreign language approved by the German section.

SPANISH

A student seeking a Master of Arts degree in Spanish should consult with the graduate adviser in planning a suitable graduate program. The minimum requirements are:

- a. Required courses
Spanish 412-3, FL 569-3
- b. Thesis or research paper: (Option 1 or 2 required)
Option 1. If writing a thesis: 6 hours of Spanish 599 or 3 hours of Spanish 599 plus 3 hours of an elective Spanish graduate course.
Option 2. If writing a research paper, either a or b required.
 - a. 4 hours of elective Spanish graduate course work, plus 2 hours of FL 509.
 - b. 6 hours of elective Spanish graduate course work.
- c. Additional graduate course work in Spanish

Before taking the comprehensive written examination, all students must demonstrate reading proficiency in another foreign language by obtaining: (a) a grade of at least *B* in 288B or in a fourth-semester college-level course in the chosen

language, or (b) a score of 465 on the Educational Testing Service Ph.D. reading examination, if the language is French, German, or Russian, or (c) a grade of at least *B* on a departmental examination if the language — Portuguese, for example — is one not tested by ETS.

Forestry

The Department of Forestry offers advanced courses for the Master of Science degree in forestry. In addition, curricula are available which permit graduate students with an interest in forestry to pursue this interest in Doctor of Philosophy degree programs in other departments.

Admission

In addition to requirements set forth by the Graduate School, the Department of Forestry requires the following:

1. A minimum grade point average of 2.7 is required for admission ($A = 4.0$). The department will permit conditional entry between the 2.5 and 2.7 grade point average level. A grade point average of 2.7 or higher is required for stipend eligibility when available.
2. The student is required to provide proof of proficiency in technical writing. Normally an expository essay is required to evaluate whether the student should have remedial grammar or writing courses.
3. Three letters of recommendation from former professors, employer's or other responsible individuals are required.
4. The aptitude test of the Graduate Record Examination is required of all applicants. This test may be taken during the first semester of residence.
5. Each applicant should fill out the statement of interest form. This form indicates the student's area of interest in forestry and the faculty member under whom the student desires to study. All correspondence should be directed to the chairman of the Department of Forestry.

Retention and Completion Requirements

Upon the graduate student's arrival on campus, an advisory committee of 3-5 members of the graduate faculty will be formed to guide the student's work. The same committee will be responsible for preparation and administration of thesis exams and also for the reading of the thesis. The advisory committee chairman and one other member of the committee shall be members of the forestry department. The other member(s) may be selected from any academic unit including forestry.

Summary of Events

1. The deadlines for receipt of applications and official transcripts in the office of the Graduate School are, (a) The second Saturday in July for admission to the fall semester, (b) The last Saturday in November for admission to the spring semester, (c) The last Saturday in March for admission to the summer term.
2. Letters of recommendation should reach the forestry department chairman by the same dates as above.
3. Acceptance by department and Graduate School should be announced one month or earlier than the desired matriculation date. A thorough review will be made by a screening committee of four forestry department graduate faculty and the departmental adviser. Students rejected for admission will also be notified.
4. Registration for first semester's work after student's acceptance by the department.
5. Appointment of advisory committee chairman, written plan for course work,

and selection of tentative thesis areas all within first two months of residence.

6. Preparation of formal written thesis outline and preparation of research proposal by the eighth week of the second semester.
7. Completion of final, typed or reproduced review copies of thesis and submission of advisory committee at least three weeks in advance of oral defense of thesis. Handwritten or incomplete work will not be acceptable.
8. Oral exam to be followed by completion of required approval forms. If thesis requires modifications, this should be accomplished immediately to reach the graduate dean's office in due time set by the Graduate School. One copy of the thesis will be provided for the department, one for the chairman of the advisory committee in addition to copies required for the Graduate School and a copy for the author. Additional copies may be required for projects sponsored by outside agencies.

Master of Science Programs

The Department of Forestry offers four areas of concentration with specialties within each. Combination of specializations is possible.

FOREST RESOURCE MANAGEMENT

Under this heading, a given graduate program may concentrate on forest management, forest ecology, forest resources measurements, forest resources economics, forest genetics, or forest policy and administration.

OUTDOOR RECREATION RESOURCE MANAGEMENT

Specialization may be made in social, managerial or natural science aspects of wildlands recreation and park planning and management in the given graduate program depending on the student's interest.

WOOD SCIENCE AND TECHNOLOGY

Physical, mechanical, or biological properties of wood or woodbase materials may be studied. Also, the production and marketing of forest products may be selected.

A specialty in environmental studies in forestry is available.

Assistantships and Fellowships. Ten to twelve research assistantships are sponsored each year by the McIntire-Stennis Cooperative Forest Research Act. Eight teaching assistantships funded by the School of Agriculture are also available.

In addition to general awards made through the Graduate School, stipends for research studies are available from the Federal Forest Service, the U.S. Department of Interior, other federal and state agencies, and private corporations.

Requirements

Since the normal minimum requirement for graduation is 32 semester hours, the completion of degree work for students holding assistantships should be accomplished within four semesters (including summer) which is also the normal maximum span for financial aid.

To gain teaching experience, graduate students are expected to assist in the classroom or laboratory for at least one academic semester (20 hours per week) during their tenure with the forestry department. The remaining semesters will also involve either research or teaching at the rate of 20 hours a week. All graduate students are required to enroll in Seminar (Forestry 501) for two semesters for which they will receive one semester hour of credit.

Staff

In addition to the faculty listed in the Graduate School Catalog, several adjunct professors also hold appointments with the forestry department. These professors

are assigned to the forest science laboratory of the North Central Forest Experiment Station and the Crab Orchard National Wildlife Refuge. They advise and serve on graduate guidance committees.

Research Facilities

Land

- a. Southern Illinois University is well endowed with a number of different forest types which are available to the forestry department for teaching research purposes. In particular, we are conducting or planning research and demonstration programs on forest plots and experimental fields of the 3000 acres of Southern Illinois University at Carbondale and its experimental farms. We also have access to wooded lands of the 600 acres of the Touch of Nature, Environmental Center, 400 acres at the Pine Hills Field Research Station, and other forests.
- b. Through various memoranda of understanding and special use permits we have use of forested lands and plots on the 43,000 acres of the Crab Orchard Wildlife Refuge, the 250,000 acres of the Shawnee National Forest, and the 4000 acres of the Trail of Tears State Forest, all of which are within an hour's drive of Carbondale. In addition, we can conduct basic research on the 640 acres tract of the Beall forest near Mt. Carmel, Illinois. The forests on this land represent one of the last central hardwoods remnants of virgin bottomlands and slopes and are under the jurisdiction of the Illinois Nature Preserves Commission.

Physical Facilities

- a. A research green house operated in cooperation with the U.S. Forest Service at the Tree Improvement Center on the western side of the campus is in operation for research and graduate teaching. Greenhouses and growth chamber facilities in the agriculture greenhouses in conjunction with the Department of Plant and Soil Science are also available.
- b. A variety of laboratories for all phases of forestry research as well as access, through cooperative agreements, to laboratory facilities with other agencies on the campus are in service. The Forest Science Laboratory of the U.S. Forest Service, located adjacent to the forestry department offices, is available to our graduate students for research and other functions. In addition, a wood testing laboratory and a large wood products pilot plant is accessible at SIU School of Technical Careers approximately twelve miles east of the main campus.

Geography

Programs offered through the Department of Geography lead to the Master of Arts, the Master of Science and the Doctor of Philosophy degrees in geography. Concentrations are available in physical environmental systems, resource management systems, and (at the master's level) urban and regional planning. Students may also complete requirements for the Master of Science in Education degree in secondary education with a teaching specialty in geography.

General Requirements

The graduate program for each student will be structured from a student inquiry viewpoint. The student should take the initiative with the guidance of the adviser and the departmental faculty during all phases of the program.

Each student's progress will be assessed each semester by the faculty in a meeting within 10 days after the beginning of the ensuing semester. Following that meeting, a statement based on faculty reports of performance will be written

by the adviser for submission to the student, the chairman of the department and the graduate research, program, and professional activities committee. Each student is expected to show continued progress and, in particular to develop habits of critical analysis and dialogue.

Master's Degree

Selection of a Tentative Adviser. Students admitted to the master's program should expect to qualify for the master's degree within a 15-24 month period depending on academic and work loads. Incoming students should choose a tentative adviser no later than two weeks after the beginning of their first semester of residence. The choice will be made in consultation with the chairman of the department and with the consent of the prospective tentative adviser, taking into consideration such matters as faculty expertise and faculty advisee loads.

Course of Study. A proposed course of study, identifying deficiencies to be rectified, and language, statistics (viz.: Geog. 410, 510), or other technique requirements, will be initiated by the student in consultation with his adviser during the student's first term of residence. The proposal will be presented to the department committee responsible for the graduate program for comment and approval. The course of study shall include Geog. 500-3, principles of research, and at least two courses from the following, depending on the student's background:

Geog. 422-4, Economics in Geography and Planning I

Geog. 424-4, Natural Resources Planning

Geog. 425-4, Water Resources Planning Simulation

Geog. 432-4, Urban Climatology of the Environment

Geog. 432b-4, Hydrologic Climatology

Geog. 470-3, Urban Planning

Geog. 471-3, Regional Planning

Geog. 522-4, Economics in Geography and Planning II

Each student also include at least two geography seminars in his program.

Degree Requirements. In addition to the master's degree requirements of the Graduate School, the student shall:

1. Arrange for an adviser and master's advisory committee in consultation with his tentative advisor before the end of the first year of graduate studies.
2. Develop a thesis or research paper proposal. The thesis or research paper proposal must be approved by the student's master's advisory committee before the student registers for Geog. 599 (Thesis) or Geog. 593 (Research in Geography). A total of 4-6 credit hours of Geog. 599 may be awarded for a thesis at the discretion of the advisory committee upon final examination on the thesis (see #4 below). A total of 2-3 credit hours may be awarded for a research paper.
3. The student will submit a thesis or research paper to the advisory committee at least two weeks before his comprehensive examination.
4. The student will complete a comprehensive examination at which the student's master's studies and thesis or research paper will be reviewed and evaluated. This shall be at least six weeks prior to the student's projected graduation date.
5. Upon approval of the comprehensive examination and the thesis or research paper, the advisory committee will request the chairman of geography to forward to the Graduate School the recommendations of the geography faculty that the master's degree be awarded.

Master of Science in Education degree. This degree is available from the College of Education from applicants who consider teaching of geography as a career. For further details see the program statement for Secondary Education.

Doctor of Philosophy Degree

The Ph.D. degree in geography is a specialized research degree which may be earned in either of two concentrations: physical environmental systems or resource management systems. The Ph.D. program assumes a broad background comparable to that provided by the M.A. or M.S. programs, and is designed to develop a comprehensive yet critically analytic knowledge of theory, literature, research design, and application within one of the two concentrations. In addition, the Ph.D. student will concentrate in two subfields in which to propose creative research.

The Program. The student and the tentative adviser will formulate a program which will demonstrate competence or include a set of core courses comparable to the master's program. The student may elect to demonstrate competence in the course work as outlined in the geography master's program.

Each student will include three research seminars in the program. Before the end of the first term of doctoral work, the student will select an adviser and they jointly will recommend doctoral committee members to the graduate faculty for certification.

The student and the doctoral committee will ascertain appropriate tools and cognate courses; proficiency in these will be certified by the doctoral committee.

Comprehensive (Preliminary) Examination. Upon completion of the program, and with the approval of a majority of the graduate faculty, the Ph.D. student will offer for a comprehensive written and oral examination two subfields from within either physical environmental systems or resource management systems.

The written portion of the comprehensive examination will be prepared by the student's doctor committee which will evaluate the performance and judge the student's success or failure. The examination then will be circulated to the graduate faculty.

The graduate faculty will be invited to the oral examination which will take place not less than one week or more than two weeks from the time of the written examination. The oral examination will be conducted by the student's doctoral committee with appropriate opportunity for all graduate faculty to ask questions. The student's success or failure of the oral examination will be judged by the student's doctoral committee.

Having passed the comprehensive examination, the doctoral student will present a dissertation proposal at an open meeting of the geography department. The written and oral examination and presentation of the dissertation proposal are prerequisite to admission to candidacy.

Dissertation. The student's written dissertation will be circulated to members of the doctoral committee at least two weeks in advance of the proposed defense. The doctoral committee will announce a public invitation a week in advance and will hear the student's defense at the place and time approved by the Graduate School. The finished dissertation will be sent to the student's doctoral committee for approval. The judgment of the official committee will be expressed to the student and forwarded to the chairman of the department for recommendation to the Graduate School for conferring of the Ph.D. degree.

Geology

The Department of Geology offers a program leading to the Master of Science degree in geology.

Master of Science Degree

The objective of the master's program is to develop the student's competence in the basic fields of geology and to provide for specialization dependent on student and faculty interest. Facilities and staff are available for studies involving surface and subsurface mapping, structural geology, petrology, paleontology, micropaleontology, palynology, paleoecology, coal petrology, coal geology, stratigraphy, sedimentation, sedimentary environments, crystallography, mineralogy, low temperature geochemistry, ore deposits, petroleum geology, environmental geology, geomorphology, hydrogeology, and exploration geophysics. Many of the faculty are actively conducting research in which statistical and computer techniques are applied to problem solving in the earth sciences. Interdisciplinary research with other departments is encouraged. Preparation for teaching earth science at the high school and junior college level may also be undertaken in cooperation with the College of Education and other science departments.

A student must be admitted unconditionally to the Graduate School before the student can be officially admitted to the master's program in geology. The student will be expected to have satisfactorily completed at the undergraduate level in the equivalent of course work in the basic sciences required for a bachelor's degree in geology at Southern Illinois University at Carbondale.

A student admitted with course deficiencies may be required to complete or audit some undergraduate courses. Specific requirements will be determined by the student's advisory committee and the department chairman. Each student is evaluated on an individual basis, and the student's program is determined by individual career goals and the results of informal preassessment interviews with faculty members.

Requirements

A total of 30 hours of graduate work completed with an average grade of *B* or better constitute minimum credit requirements for the master's degree.

No specific graduate courses are required. Courses taken are determined by the student and his advisory committee. The student will not be permitted to enroll in more than 6 hours of independent study or research courses (exclusive of thesis credits).

A student majoring in geology may select a minor field. Minimum coursework should then include 20 hours of geology and 10 hours in the minor field.

A thesis subject must be approved by the chairman of the advisory committee at least 20 weeks before the date of graduation.

A final oral examination, primarily concerned with defense of the thesis, is administered as the last step before graduation. The student may be asked any questions the committee feels should have been covered by courses.

In order to pass the final oral examination a student must receive a favorable majority vote from the thesis committee, meeting in formal session. Should the student fail the final oral examination, the student may, upon concurrence of a majority of the committee, arrange a time for a reexamination not less than 30 or more than 120 days after the first examination. If the student fails the final orals on the second attempt, ineligibility for the master's degree from the Department of Geology will be established.

Two copies of the approved thesis must be presented to the Graduate School at least three weeks prior to graduation and a third copy must be presented to the Department of Geology.

Assistantships

Teaching assistantships are awarded and supervised by the Department of Geol-

ogy. Research assistantships are usually available only from research grants of individual faculty members and are supervised by the faculty member in receipt of the sponsoring grant. Research assistantship awards require advance approval of the assistantship committee of the department.

As a matter of policy, the Department of Geology does not ordinarily provide any student working for a master's degree financial support for more than two years. Requests for relaxation of this policy must be made in writing to the department chairman.

Southern Illinois and adjacent areas offer a wide variety of geological conditions ideal for individual study and research. Experienced staff members work closely with students and provide individual assistance when necessary. The Illinois State Geological Survey and several major companies in the petroleum industry actively support geological work in this area.

Guidance and Educational Psychology

The Department of Guidance and Educational Psychology offers graduate programs leading to the Master of Science in Education degree in guidance and educational psychology with concentrations in (1) guidance and counseling and (2) educational psychology and the Specialist degree in guidance and counseling.

In addition the department actively participates in the Ph.D. degree in education program.

The Department of Guidance and Educational Psychology in cooperation with other academic units offers graduate work in adult education. Inquiries about such work should be directed to the chairman of the department.

Master of Science in Education

Admission is based upon an analysis of the academic and personal potential of the individual. Prerequisites include:

1. Admission to the Graduate School.
2. Completion of departmental application form.
3. Applicants must be eligible to hold a teaching certificate if interested in elementary or secondary school employment. Special cases examined by the selection and review committee may arise. In such instances each situation will be reviewed carefully on appeal from the individual concerned.
4. Applicants for the master's degree who have earned a 2.70 grade point average (based on 4.0 as A) in the undergraduate degree will be admitted to graduate study. Those students whose averages are below 2.70 but above 2.40 may, with good reason, petition that the selection committee of the guidance and educational psychology department accept them conditionally in accordance with the regulations of the Graduate School.
5. Submission of four reference letters or letters of recommendation from professors, academic advisers, former employers, fellow teachers, or others familiar with the applicant's academic performance, research, teaching or other relevant work. The referent should be asked to comment upon the applicant's personal qualities—ideals, honesty, and leadership—ability to work in one's chosen career field (relationship with peers and organization ability), academic achievement, work experience, sense of job responsibility. Reference letters should be mailed direct to the Department of Guidance and Educational Psychology. (Students electing the educational psychology concentration may submit three letters.)

GUIDANCE AND COUNSELING

A student admitted to the concentration of guidance and counseling may select

programs in preparation for work in the elementary or secondary school setting or for positions in higher educational settings, career development centers, and child guidance centers. The degree emphasis is in child or adolescent, and adult counseling. The student is expected to develop competence in counseling. It is the intent of this program to prepare counselors in the following areas: (1) The counselor as a person, (2) counseling services, (3) career development, (4) human/environment assessment, (5) consultation, (6) coordination, (7) research and evaluation, (8) referral, and (9) change agency. The student is expected to develop a philosophy of education and the role of counseling and guidance services within this philosophy.

Admission Requirements. Students electing a concentration in guidance and counseling must meet general departmental admission requirements and:

1. Must have one year of full time employment subsequent to receipt of their bachelor's degree or be 24 years of age at the time of application to the program. Special cases examined by the selection and review committee may arise. In such instances each situation will be reviewed carefully on appeal from the individual concerned.
2. Receipt from an appropriate university or other agency of scores received on the Miller Analogies Test. This test can be taken on campus at the student's convenience.
3. Complete an autobiographical sketch. The Department of Guidance and Educational Psychology selection and review committee is interested in each applicant as an individual. The autobiographical sketch should comment upon the following:
 - a. Early life experience which may have influenced your development, *e.g.*, significant incidents in your home with parents, siblings, friends; work and responsibilities as an employee or member of a group; experience in school and elsewhere.
 - b. College experience including a listing of organizational memberships, offices held, and other activity participation which influenced a decision to apply for the chosen program of study in the Department of Guidance and Educational Psychology.
 - c. Work and other experiences, *e.g.*, teaching, summer camping, church work, work in industry, which support your chosen program of study in the Department of Guidance and Educational Psychology.
 - d. Interpersonal relationships with your peers and other educators which influenced your decision to enter education which may affect your success as a professional educator.
 - e. The role you perceive to be that of the educator-counselor as one relates to the students, the faculty, and the administrative staff.
 - f. The social issues which you believe to be most important to mankind.
 - g. Summarize, briefly, why you feel that you will succeed in your chosen field of work.

Academic Requirements

1. Minimum of 36 hours of course work with a minimum grade point average of 3.0.
2. All candidates will be required to pass one written examination during the semester in which he completes requirements for the master's degree. A written request from students signed by the advisers, must be submitted one month prior to the examination date. Should the candidate fail to pass comprehensive exams, they can expect to complete additional work as determined by the examining committee.
3. A thesis or equivalency paper in lieu of thesis is required.
4. As part of their practicum experience full time graduate students will be

placed in an appropriate educational setting for a minimum of one and a half days a week. This experience will occur during the second and third semester. Laboratory experiences and a seminar appropriate to the field work will be included. Special arrangements will be made for part time students.

Curriculum. Adolescent and adult counseling: students interested in counseling adolescents and adults are required to complete the following courses within the department: 562b Human Development in Education (3 hrs.); 538 Interpersonal Relations: Theory and Practice (4 hrs.); 542 Career Development Procedures and Practice (4 hrs.); 530 Standardized Testing: Use and Interpretation (4 hrs.); 543 Group Theory and Practice (3 hrs.); 547 Implementing Guidance Services, required only for public school counselors, (3 hrs.); 502 Basic Statistics (3 hrs.); 494b Adolescent and Adult Counseling Practicum (3 hrs.); 494c Career Planning Practicum (3 hrs.). Elective courses will be determined jointly by the student and the academic adviser.

Child counseling: students interested in counseling with children are required to complete the following courses: 562a Human Development in Education (3 hrs.); 521 Analysis of Classroom Behavior — Consultative Practices for School Personnel (3 hrs.); 537 Counseling with Children: Theory Techniques, and Practice (4 hrs.); 530 Standardized Testing: Use and Interpretation (4 hrs.); 543 Group Theory and Practice (3 hrs.); 547 Implementing Guidance Services, required only for public school counselors (3 hrs.); 494a Child Counseling Practicum (3 hrs.). Elective courses will be determined jointly by the student and the academic adviser.

EDUCATIONAL PSYCHOLOGY

The student enrolled in the concentration of educational psychology may select specializations in (1) human learning and development and (2) applied instructional psychology. The respective objectives and curricula for each specialization are described below. Requirements for admission, retention, and graduation, (which are mostly common for both program emphases) follows.

Admission Requirements. Students electing a concentration in educational psychology must meet general departmental requirements and should submit examples of previous work, related to education or psychology, i.e., papers, articles, curriculum materials, etc. as direct evidence of student's potential in this concentration. This is highly desirable, but not required.

Academic Requirements. Academic requirements common to both specializations include:

1. A B average in a sequence of prescribed courses totaling 32 semester hours.
2. A thesis must be written for the educational research specialization. The thesis topic is to be formally approved and the thesis is to be read and accepted by the student's adviser and one other member of the departmental faculty. Students in the applied instructional psychology specialization will submit a paper or product based on their internship work in lieu of thesis. As with the thesis, the paper or product will be judged by at least two department graduate faculty.

EDUCATIONAL PSYCHOLOGY (HUMAN LEARNING AND DEVELOPMENT)

Program Objectives. The masters program with a specialization in human learning and development is designed to provide students with fundamental knowledge and inquiry skills in the areas of human learning, development, socialization, instruction, research design and quantification procedures. The program is primarily designed for individuals preparing for doctoral work in educational psychology. Some occupations open to students completing this degree include:

research work in public schools, universities, research and development centers, as well as industrial, military, or rehabilitation settings. Graduates might also be employed as teachers in universities and junior colleges.

Curriculum. Students will study in three areas which are designed to provide the necessary foundation in the major areas of educational psychology. The program will be determined jointly by the student and the academic adviser in accordance with the following departmental requirements.

1. Learning: 6 hours.
2. Design and Quantification: 10 hours.
3. Social-Developmental: 6 hours.
4. Thesis: 6 hours.
5. Elective: 4 hours.

A total of 32 semester hours is required.

EDUCATIONAL PSYCHOLOGY (APPLIED INSTRUCTIONAL PSYCHOLOGY)

The master's degree with a specialization in applied instructional psychology is designed to make a teacher more effective in the classroom. Emphasis will be on interpersonal relations and group dynamics in the classroom, cognitive and affective growth, classroom discipline, and psychological trends, problems, and issues in contemporary education. Design and development of classroom tests will be covered as well as the use and interpretation of standardized tests.

There are two options for completing the program. First, there is an option for part-time students, such as teachers. This option is designed to take two summers and two academic years to complete. But the reader should note that only one course is taken during each semester of the academic years. More than one course can be taken by consent of the department and thereby reduce the completion time. Courses will be offered in the late afternoons or evenings so that teachers who are employed can attend them. The second option is for full-time students. This option can be completed in two summers and one academic year.

An internship is part of this master's degree program. The internship requirement can only be satisfied by professional work in an elementary, secondary, or post-secondary school.

The degree requires 30 hours of work which includes two electives and one paper (one hour credit) which is to focus on the internship experience (Guidance 595) and which is in lieu of a thesis. One elective should be in a content area of the student's choice; such as reading, math, science, social studies, etc. The other elective should be from special education and should involve training of handicapped children; that is, mentally retarded or defective, hard of hearing or deaf, poor eyesight or blind, stutters, epileptics, etc.

The part-time and full-time options are illustrated below. They should not be interpreted as fixed sequences of courses or completion times. There is considerable flexibility and other schedules and sequences can be arranged with departmental consent.

Option 1 (part-time students)

First summer: two electives
 First fall: 512
 First spring: 518
 Second summer: 422, 540
 Second fall: 513, 595 (4 hrs)
 Second Spring: 595 (4 hrs), paper

Option 2 (full-time students)

First summer: two electives
 First fall: 512, 513, 422
 First spring: 518, 540, 595 (4 hrs)
 Second summer: 595 (4 hrs), paper

The Specialist Degree

The Specialist degree in guidance and educational psychology is awarded to students who complete successfully the equivalent of a year of sequenced training

(minimum 30 hours) beyond the master's degree. Students who complete the program of study may qualify for positions as pupil personnel administrators or counselors with special populations or for admission to an internship in school psychology.

The specialist program is designed to train service oriented personnel who have interests in children and young adults who have learning and social problems related to their schooling. Sensitivity to the school or college as a social system and understanding the interrelationships among professional personnel as well as between staff members and students are emphasized.

Program Objectives. This specialist program is designed to meet the needs of school personnel through an interaction model of training involving local school districts, the state Department of Public Instruction, the College of Education, and other appropriate resources. All students who complete the specialist program will be expected to have skills and knowledge in the area of: (1) consultive roles of school specialists, (2) counseling theory and practice, (3) individual appraisal and diagnosis, (4) evaluation of school programs, and (5) management of classroom behavior.

Students in conjunction with their advisers will select one or more of these areas for special emphasis. Laboratory practice and experiences in the schools will be employed to relate knowledge gained through formal course work to the skills required on the job.

Program Administration. Faculty members of the Department of Guidance and Educational Psychology who have responsibilities in the specialist program hold doctorates and are experienced practitioners. The content and quality of the specialist program, including curriculum review, selection of students, and program relevancy, are the responsibility of an admissions committee.

Admission procedures: admission into the program of study is established by the approval of an admissions committee.

1. The student must be admitted to the Graduate School and
2. Must complete the application for admission requirements (letters of recommendation, test scores, as identified on the admission application).

Admission criteria required by the department:

1. A master's degree or its equivalent in educational psychology, special education, guidance, or related area is required.
2. Submission by an appropriate university or other agency of scores received on the Graduate Record Examination. The tests may be taken on campus at Southern Illinois University at Carbondale.
3. Experience in the public schools or related areas is required.
4. A 3.25 graduate grade average (based on 4.0 as A) will be required of applicants for the Specialist degree before they will be admitted to the program unconditionally.
5. A student must be admitted by both the Graduate School and the department admissions committee.
6. Students must have academic competencies in the following areas for unconditional admittance to the Specialist degree program:

Competency Areas:

- | | |
|-----------------|--|
| (a) Statistics | Guid 502 (Introduction to Statistical Methods) or Equivalent |
| (b) Measurement | Guid 530 (Standardized Testing) or Psych 522 (Experimental Design and Analysis) or equivalent |
| (c) Personality | Psych 440 (Personality Theory) or Psych 530 (System of Personality and Psychotherapy) or Psych 431 (Psychopathology) or equivalent |

- (d) Behavior & Development
- Guid 562a (Human Development in Education or
Guid 562b (Human Development in Education or
Psych 451 (Advanced Child Psychology) or
Psych 554 (Development Theory) or equivalent
- (e) Curriculum
- El Ed 561 (Elementary School Curriculum) or
Sec. Ed. 562 (Secondary School Curriculum) or
Ed AF 511 (Curriculum Organization) or equivalent

A department admissions committee will inform appropriate university offices when the applicant is accepted to a program of study.

Certificate Requirements

1. The requirements for the Specialist's degree are reviewed in Chapter 1 of this catalog. A minimum of 30 semester hours beyond the master's degree with a 3.25 grade point average is required for all course work taken at the specialist's level.
2. A candidate is required to pass a written comprehensive and an oral examination over course work after 24 semester hours have been completed. An evaluation is also made of the candidate's performance as a professional in a public school.
3. A scholarly paper or project is required on a topic formally approved by the student's specialist committee.

The students will follow the guidelines suggested below so that minimal competencies for the Specialist degree will be assured.

		HOURS
Analysis of Classroom Behavior	Guid 521	3
Seminars: Counseling	Guid 568	3
Evaluation (as the topic)	Guid 580	
School Psychology	Guid 555	
Practicums: School Psychology	Guid 494d	3
Counseling	Guid 494a	
Advanced Practicum	Guid 594	
Individual Investigation	Guid 592	3
Individual Appraisal	Guid 532	10
	Guid 533	
	Guid 546	
Electives		8

Health Education

The Department of Health Education offers four concentrations for the Master of Science in Education degree in health education: school health education, community health education, industrial health, and safety education, and participates in the Ph.D. degree in education. Students interested in seeking employment in the area of industrial safety are encouraged to consult with the chairman regarding appropriate courses.

Admission

Permission to enter graduate programs in health education is by application approval of the department and fulfillment of the following extra requirements:

1. Admission to the Graduate School.
2. Five letters of reference from persons who can evaluate past performance and potential for graduate work should be sent to the office of the department chairman.

3. Miller Analogies Test scores must be submitted. Students may take this test on the SIU campus at Carbondale.
4. Candidates for the master's degree must have a 2.70 grade point average (A = 4.0) to be admitted in good standing. Students with grade point averages below 2.70 but above 2.40 may petition the department and, if accepted, will be admitted in accordance with regulations of the Graduate School.

Additional admission requirements for the concentration in school health education or safety education:

1. Candidates should be certified for teaching. Exceptions to this requirement may appeal to the academic affairs committee of the department.

Additional admission requirements for the concentration in community health education:

1. Candidates must have undergraduate preparation in a discipline providing an adequate foundation for graduate work in community health education: *i.e.*, nursing, biological science, health science, or social sciences.
2. Candidates planning to teach will be expected to meet certification requirements for teachers in Illinois.

Degree requirements:

SCHOOL HEALTH AND SAFETY EDUCATION

In school health and safety education, a minimum of 24 hours in health education including a common core of 8 semester hours (533a, b) and a total of 32 graduate hours are required for the degree.

COMMUNITY HEALTH EDUCATION

The program in community health education requires a total of 40 semester hours, 8 of which must be gained through 12 weeks of practical field work experience. In addition to the common core courses (533a, b) of 8 semester hours required of all master's degree candidates, the community health education concentration requires Health Education 488, 489, and 500. A minimum of 2 semester hours in communications or group work methods is strongly urged.

Higher Education

The Department of Higher Education provides graduate study leading to the Master of Science in Education degree in higher education and to a concentration in higher education for the Doctor of Philosophy degree in education.

Pre-service and in-service preparation is provided for persons who are teaching or serving as administrators or who expect to teach or serve as administrators in two-year and four-year colleges and universities and related post-secondary educational institutions.

The Master of Science in Education

The Department of Higher Education offers four concentrations toward the Master of Science in Education degree in higher education: academic administration, college and university business affairs, college student personnel, and community and junior college teaching. Students interested in one of these master's programs may obtain information and advisement from the advisers of the respective programs through the Department of Higher Education.

The Department of Higher Education in cooperation with other academic units also offers graduate work leading to the Master of Science in Education degree with a concentration in adult education. Inquiries about this concentration should be directed to the chairman of the department.

Application. Inquiries regarding application should be directed to the chairman of the Department of Higher Education. Each applicant must submit an application to the Graduate School. In addition, an applicant is required to submit to the Department of Higher Education the departmental application form, an autobiographical statement, three letters of reference (special form provided), and, when necessary, test results from either the Miller Analogies Test or the Graduate Record Examination.

Admission. Students applying for academic administration or for college and university business affairs should have had two years of full-time experience in higher education. Students applying to the college and university business affairs master's program may be required to have taken certain courses in or to have attained at least one or more competencies related to business affairs. Students considering college student personnel programs should show some evidence of interest or participation in student personnel programs as an undergraduate. Students applying for the specialty in community and junior college teaching are expected to have an undergraduate concentration in a subject area commonly taught in a community or junior college.

Each applicant is considered for acceptance on an individual basis with much consideration being given to evidence showing the applicant's commitment to higher education as a field of study and as a career.

Retention. Each student works closely with an adviser for program preparation. Each student also has a committee which assists in reviewing the progress, in supervising the thesis or research paper, and in administering the final examination. The records of each master's student are reviewed periodically by the adviser and committee to determine whether the student should continue in the program.

Program Requirements. Each student will develop with an adviser a suitable sequence of courses that will be designed to assist the student in attaining academic and professional objectives. In each of the specialties there are particular requirements that should be noted:

ACADEMIC ADMINISTRATION

32 semester hours (minimum)

Required Courses: 15 semester hours

- Hi Ed 510-3 Higher Education in the United States
- Hi Ed 513-3 Organization and Administration in Higher Education
- Hi Ed 516-3 College Students and College Cultures
- Hi Ed 518-3 College Teacher and College Teaching
- Hi Ed 535f-1 Academic and Faculty Administration
- Hi Ed 545e-2 Problems in Central Administration

An internship experience is required if an exception was made in waiving the pre-admission work experience.

COLLEGE AND UNIVERSITY BUSINESS AFFAIRS

32 semester hours (minimum)

Required Courses: 14 semester hours

- Hi Ed 501-2 Research in Higher Education
- Hi Ed 513-3 Organization and Administration in Higher Education
- Hi Ed 518-3 College Teacher and College Teaching

Hi Ed 528-3 Finance in Higher Education
 Hi Ed 535f-1 Academic and Faculty Administration
 Hi Ed 545e-2 Problems in Central Administration
 Hi Ed 545f-2 Business and Fiscal Affairs

An internship experience is required if an exception was made in waiving the pre-admission work experience.

One or more professional competencies relative to business affairs are required.

COLLEGE STUDENT PERSONNEL

40 semester hours (minimum)

Required Courses: 14 semester hours, including 2 hours of credit internship

Hi Ed 515-3 College Student Development: Operations and Policies
 Hi Ed 516-3 College Student and College Cultures
 Hi Ed 525-3 Philosophy of Higher Education
 Hi Ed 595-2 Internship in Higher Education
 Guidance 502-3 Basic Statistics

An internship experience (paid) is required.

Students are encouraged to develop an interdisciplinary program preparing them in general student personnel administration or in one or more of the particular student eservices.

COMMUNITY OR JUNIOR COLLEGE TEACHING

32 semester hours (minimum)

Required Courses

Courses in the teaching specialty: 20 semester hours

Courses in Higher Education: 12 semester hours

Hi Ed 516-3 College Students and College Cultures

Hi Ed 518-3 College Teacher and College Teaching

Hi Ed 521-3 Curriculum Design and Policy

Hi Ed 526-3 Community Junior College

Recommended beyond the minimum requirements:

VES 466-3 Principles and Philosophies of Vocational, Occupational and Career Education (for those planning to teach in an occupational program)

Hi Ed 595-2 to 6 Internship (when feasible)

An internship cannot be assured, but effort is made to provide such an experience when possible.

Research Requirements. Each student shall demonstrate research competencies through writing an acceptable master's thesis or a research paper. Students selecting academic administration or college and university business affairs are usually asked to write a thesis and to demonstrate research competencies as outlined by their committee. Students in college student personnel usually prepare research papers on a topic concerned with student development and related activities. Students in community and junior college teaching must submit an acceptable research paper on a topic in the teaching field with the approval coming from both the adviser in the Department of Higher Education and the representative from the subject-area department who agrees to work with the student in writing the paper. In exceptional cases, the paper may be in higher education instead of the teaching field. In some instances, the student may wish to meet the thesis requirement instead of the research paper requirement.

Final Examination. All master's students are required to complete successfully a final examination which may be written or oral or both. Upon the successful

completion of all requirements, including a B average for all course work, the student is recommended to the Graduate School for graduation.

Financial Aid

The Department of Higher Education makes an effort to find financial support for its graduate students through a number of graduate assistantships available throughout the University in different administrative offices and residence halls. Students should consult their academic advisers about possible financial assistance including graduate fellowships.

History

Graduate work in history is offered at both the master's and the doctoral levels. Admission to programs administered by the Department of History must be approved by the department, with approval dependent upon the preparation, ability, and promise of the individual student. For the Master of Arts degree in history, the department has no formal admission requirements beyond those of the Graduate School, except that students admitted with a GPA less than 2.7 must establish a 3.00 GPA in history courses in the first semester. The department reserves the right to terminate from the history program a student who does not establish and maintain a 3.00 GPA in history courses. For admission to the doctoral program, each applicant should submit to the department, in addition to the material sent to the Graduate School, the following: three letters from former teachers, preferably at the graduate level; a letter expressing the applicant's professional and personal objectives; and a report of the result of the aptitude test (verbal and quantitative) and the advanced test in history of the Graduate Record Examination.

The Master's Degree

Three concentrations are offered for the Master of Arts degree in history: American, Latin American, and European. History may be chosen as a minor when a student's program of study allows for a graduate minor or as a teaching specialty for the Master of Science in Education degree in secondary education or in higher education.

Students enrolled in the Master of Arts degree program must consult with the graduate adviser in the Department of History before registering for courses. Students enrolled in either of the Master of Science in Education degree programs must consult the appropriate adviser in the administering department in the College of Education before registering for courses.

For the Master of Arts degree in history, 30 semester hours of satisfactory graduate work are required; at least 15 of these 30 hours must be on the 500 level. Within this general requirement, at least 20 semester hours must be in appropriate history courses, with at least 10 of the 20 hours on the 500 level. The remainder of the hours may be taken in courses on the 400 level. The M.A. student must take at least six hours of graded 500-level courses. A candidate for the Master of Arts degree must demonstrate proficiency in one foreign language, statistics, or computer programming.

The language requirement may be fulfilled either by passing Foreign Language 288b with a grade of *A* or *B* or by passing a reading examination offered by the Educational Testing Service. Proficiency in statistics may be demonstrated by passing Guidance 506 or Mathematics 514 and 515 with a grade of *A* or *B*. Competency in computer science may be demonstrated by earning an *A* or *B* in Computer Science 202 and a second course in computer science approved by the Chairman of the Department of Computer Science. The candidate may fulfill the research requirement through either the thesis or the non-thesis program.

A candidate in the thesis program should, with the approval of the chairman, select a thesis adviser and a thesis topic by the end of the first full-time semester in the program. As many as six semester hours may be in thesis research. The candidate must submit an acceptable thesis and pass a comprehensive oral examination covering his fields of specialization and his thesis.

A candidate in the non-thesis program must receive an *A* or *B* in two separate research seminars. A copy of one paper must be filed with the Graduate School; copies of both papers must be filed with the department. Each candidate is required to pass a comprehensive written examination conducted by a three-man committee. The examination will cover two fields of the candidate's choice.

DIVISION I — AMERICAN HISTORY

United States to 1877

United States 1865 to present

DIVISION II — LATIN AMERICAN HISTORY

Colonial

19th Century

20th Century

DIVISION III — EUROPEAN HISTORY

Ancient

Mediaeval

England since 1600

Europe, 1450-1789

Europe, 1789 to present

DIVISION IV — ASIAN HISTORY

The Doctor of Philosophy Degree

Students seeking the Ph.D. degree in historical studies must complete at least two years of full-time graduate work beyond the bachelor's degree or one year beyond the master's degree (or its equivalent), and submit a satisfactory dissertation. The courses and hours of credit necessary for a doctoral student to prepare for preliminary examinations will be determined by the student's advisory committee. The goal is to develop high competence in the five selected fields in which the student will be examined. Full-time Ph.D. degree students who have not passed their preliminary examinations must take, in each semester, at least six hours of graded courses, at least three of which must be on the 500 level. Dissertation hours may be taken prior to admission to candidacy only with the approval of the graduate studies committee.

The department requires all candidates to pass a reading examination in two foreign languages. With the approval of the department, statistics or computer programming may be substituted for one language. Procedures for demonstrating proficiency in foreign language, statistics, or computer programming are the same as those required for the Master of Arts degree. The language requirement must be satisfied prior to the preliminary examinations.

The department offers advanced study in thirteen fields of history which are grouped in four major divisions.

DIVISION I — AMERICAN HISTORY

Colonial

United States, 1776-1865

United States, 1865-1919

United States, 1919 to present

Mississippi Valley and Illinois

DIVISION II — LATIN AMERICAN HISTORY

Colonial

19th Century

20th Century

DIVISION III — EUROPEAN HISTORY

Mediaeval

England since 1600

Europe, 1450-1815

Europe, 1789 to present

DIVISION IV — ASIAN HISTORY

Each student will be responsible for five fields; either all five in history or four in history and one in a minor subject. For preliminary examinations, the student will present four fields, all in history or three in history and one in a minor field. The student will be certified in a fifth field, either in history or in a minor subject, by taking courses and passing them to the satisfaction of the advisory committee and the professors in that field. Not more than three fields may fall within any one of the above divisions. The preliminary examinations will consist of a three-hour written examination in each of his four fields and a two-hour oral examination covering all fields.

After completing his course work, fulfilling the foreign language requirements, and passing the preliminary examinations, the student will be recommended for Ph.D. candidacy and will devote full time to the dissertation. Dissertation subjects must be chosen from either American history, Latin American history, or European history. Subjects in American history may fall within any field listed in division I above. Subjects in Latin American history may fall within any field listed in division II. Subjects in European history may be chosen from selected topics in modern continental European history. The final oral examination will cover the field of the dissertation and related matters.

Assistantships and Fellowships

Fellowships and teaching assistantships are available to qualified graduate students. All carry stipends, and remission of tuition. Application for these awards should be submitted by February 1.

Additional information concerning the graduate program in history may be obtained by writing to the chairman, Department of History.

Home Economics Education

(See Vocational Education Studies for program description)

Instructional Materials

(See Educational Media under Curriculum, Instruction and Media for program description)

Journalism

The School of Journalism offers graduate programs leading to the Master of Arts and the Doctor of Philosophy degrees in journalism. Students in the journalism programs may concentrate their work in these general areas: media history,

behavioral studies, legal studies in communication, and mass media and society. The Master of Arts and Ph.D. degrees are research degrees culminating in the preparation of a thesis or dissertation. The student is expected to conduct research to provide answers to important questions, to discover new information, to show new associations between previously-known facts, or to supply historical or legal information about a subject.

Admission to the Degree Program

Students seeking admission should consult the appropriate section of the Graduate Catalog. GRE Aptitude Test scores must be submitted to complete the application for admission. Students without a previous journalism degree or professional media background are required to take some undergraduate courses for no credit as a way of building background. The amount of this course work will be determined by the adviser in consultation with the faculty. A TOEFL score of 600 or higher is required of *all* foreign students, except those from English-speaking countries.

Master of Arts Degree

Candidates for the M.A. degree must complete a minimum of 30 semester hours of graduate work, including 3 hours for the thesis. Additional courses may be required if students change their areas of interest or if performance in course work or comprehensive examination results indicate the need for more course work. No fewer than 18 nor more than 21 semester hours of course work must be earned in journalism. Remaining course credits should be taken in departments whose disciplines have strong theoretical bases. Courses in some departments may not, therefore, be used to meet requirements. Students often elect courses in history, psychology, political science, sociology, anthropology, economics, and guidance.

When all course work has been completed (with all incomplete and deferred grades removed) with a minimum 3.0 grade point average, each student must choose one of two alternatives: (1) Pass a written comprehensive examination covering history of the mass media, communication law, communication theory, and an appropriate research methodology. An oral examination is also required. (2) Prepare and present before a committee of three School of Journalism faculty members a comprehensive review and critique of the literature in a selected area of mass communication studies. A rigorous oral examination over the area will follow the presentation. Either alternative (1) or (2) must be completed prior to completion of the student's fourth term of residence, including summer term.

Each student is required to prepare, write, and defend a thesis which demonstrates a capacity for investigation and independent thought. Students must be enrolled for thesis credit during the semester they defend their theses.

Failure on comprehensive examinations (or on the paper or defense of the paper prepared in lieu of the examinations), or failure to maintain continuous progress toward completion of degree requirements serve as reasons for dismissing a student from the program. Additional work may be required of those students whose progress is interrupted.

Doctor of Philosophy Degree

Minimum course requirements for the Ph.D. degree include 38-40 semester hours beyond the master's degree. An evaluation of previous work is made and transfer credit is allowed only for work which fits the degree plan. Approximately two-thirds of course credit hours will be earned in journalism; the remaining hours will be earned in a non-journalism area of study, which might include work in more than one department. Additional course work may be required if the student's area of interest changes or if performance in courses or comprehensive examination results indicate the need.

Students must maintain a 3.25 average in course work taken at Southern Illinois

University at Carbondale, and may be required to take extra work if any grades of *C* or lower are earned at Southern Illinois University at Carbondale.

During the second semester of study, each Ph.D. student will prepare a total program plan for the degree. The plan should include a list of courses and tools, with some explanation and justification for their selection in relation to academic goals. The plan will be discussed and modified, when appropriate, before approval. Once approved, the plan may be changed only with the permission of the adviser. The student may deviate from the 2/3-1/3 pattern if the resulting program contains work leading to appropriate research or professional career goals.

Tool Requirements. Minimum course requirements listed above do not include courses taken to satisfy tool requirements. The Ph.D. student, in consultation with the adviser, will select two useful tools from among:

Journalism 500 and 501 (Research Design)

Journalism 530 and History 492 (Historiography)

Guidance 506 and 507 (Statistics)

Journalism 540 and History 461A or 461B or Political Science 433A or 433B (Legal Research)

Computer Programming (courses to be selected)

Modern Foreign Language

Courses listed as tools are subject to change without notice at times when departments change course content, titles, or numbers. Only grades of *A* or *B* are accepted for tool courses.

A student may propose other research tools for consideration by the School of Journalism, but such tools must be useful in the conduct of research, especially for the doctoral dissertation.

Examinations. Each student must pass rigorous comprehensive written and oral examinations after completing tool requirements and all course work (with all incomplete and deferred grades removed). The examination must be completed within one year after the student has satisfied all course and tool requirements. Failure to successfully complete the exams during the one-year period will result in dismissal from the program. The form and scope of the examinations are at the discretion of the graduate faculty members in the School of Journalism, but ordinarily the tests examine the student's grasp of mass media history, communication law, communication theory, an appropriate research methodology, and an area outside of Journalism that is relevant to the student's studies.

Each student prepares a dissertation proposal, defends and explains the proposal to his or her committee, and completes the research and writes the dissertation. Within one year after admission to candidacy, the student must have a written dissertation proposal approved by his or her committee. The dissertation must be based on scholarly research and independent thought.

Students must enroll for a minimum of 24 hours in Journalism 600. Each student must enroll in Journalism 600 each term between admission to candidacy and completion of all requirements for the Ph.D. degree.

The dissertation defense will be held before members of the dissertation committee (all of whom must be present) and interested observers. Although others than committee members may ask questions of the student, the pass or fail decision on the oral will be made by committee members only.

Latin American Studies

The Master of Arts degree in Latin American studies is earned through an interdisciplinary program of courses offered in the Departments of Agricultural Indus-

tries, Animal Industries, Anthropology, Botany, Economics, Foreign Languages and Literature, Geography, History, Marketing, Philosophy, Plant and Soil Science, and Political Science. Southern Illinois University at Carbondale has a distinguished faculty of Latin Americanists and the Latin American holdings of the Morris Library are extensive. The program is supervised by the Latin American studies advisory committee.

Prerequisites for the masters degree include a basic knowledge of the Latin American area obtained through previous academic work, independent study or personal experience in the region. Students also must demonstrate language skills (in Spanish, Portuguese or both) appropriate to their career goals. The chairman of the Latin American studies advisory committee will determine if the student has met these prerequisites and prescribe additional work to eliminate any deficiencies.

Requirements for the Master of Arts Degree

1. The completion of at least 20 hours in courses pertinent to the Latin American area offered for graduate credit in one of the departments listed above.
2. The completion of a minimum of 10 hours in complementary courses approved by the student's supervisory committee. To meet this requirement students may select offerings in a maximum of three fields.
3. The completion of a satisfactory thesis on a Latin American topic in the major department. Students will receive 3 to 6 hours of credit for the thesis. Three of these hours may count toward the 20 hour requirement in the major department.

In every case the student's final program must be approved by the supervisory committee, acting under the policies established by the Latin American studies advisory committee, in accordance with the rules of the Graduate School.

Linguistics

Graduate courses in theoretical and applied linguistics are offered leading to the Master of Arts degree in linguistics or to the Master of Arts degree in English as a Foreign Language. Both 400- and 500-level courses are offered for a minor in linguistics, and in English as a Foreign Language. Applicants for admission should send inquiries to the chairperson, Department of Linguistics, Southern Illinois University, Carbondale, Illinois 62901.

Admissions. Applicants for admission to either degree program, besides meeting the general conditions for admission to the Graduate School, must have an undergraduate GPA of at least 2.7 (A = 4.0). Applicants with GPA's between 2.4 and 2.7 may be granted conditional admission. (Students admitted on a conditional basis must earn a graduate GPA of 3.0 after the first 12 hours of coursework taken in their program; failure to do so will result in the student's being dropped from the program.) In addition, applicants who are not native speakers of English must have a TOEFL score of at least 550. Applicants are encouraged to submit GRE scores in the support of their application for admission. An undergraduate background or work experience in one of the following fields is desirable but not required: anthropology, English, foreign languages, mathematics, philosophy, psychology, speech, sociology.

Preprofessional Assignments. As a vital part of his graduate educational experience each student must be engaged in an appropriate research or teaching assignment each term. These assignments vary according to the needs and professional goals of the student. They are designed to supplement the formal course work with

a variety of preprofessional activities in research and teaching, under staff supervision.

The amount of time required of the student varies according to the progress made, the type of assignment, etc. The purpose of these assignments is to expose the student to some of the types of activities that will ultimately be engaged in after receiving the M.A. degree. Performance on these assignments is evaluated.

Retention. Students admitted on a conditional basis because of having a GPA between 2.4 and 2.7 must earn a graduate GPA of 3.0 after the first 12 hours of course work taken in their programs; failure to do so will result in the student's being dropped from the program.

If, after one term on academic probation, as defined either by the Graduate School or herein, any students who fail to return to good standing, will not be entitled to financial assistance from the department. If, after two terms on academic probation, they fail to return to good standing, they will be dropped from the program.

When students accumulate three or more incompletes, they will be put on academic probation and will return to good standing by reducing the number of incompletes to two or less. On that academic probation the above stipulations for financial assistance and for being dropped from the program apply.

Comprehensive Examination. Toward the end of their course work, students must take and pass a written comprehensive examination covering the areas of their concentration. This examination may not be taken more than twice. In order to be eligible to take the examination, students must have at least a 3.0 GPA when the examination is given. Students having a GPA just below 3.0 may petition the department's executive committee for a special waiver of this requirement. However, petitioning the committee does not automatically result in a waiver.

Grade Point Average to Graduate. All graduate work must be completed with an overall GPA of 3.0.

Master of Arts Degree in Linguistics

Applicants for admission to the linguistics program must satisfy the following prerequisites: coursework corresponding to articulatory phonetics (402a) and general linguistics (401).

Applicants with partial deficiencies in these prerequisites may be provisionally admitted until the prerequisites are met. With regard to these prerequisite courses (which do not carry degree credit), the student who believes himself capable in the material of any of these courses may ask that a proficiency examination be administered. Such an examination will be equal in scope to that usually given at the end of the course.

Candidates for the M.A. degree must have current proficiency in a language other than English; this may be native proficiency or the equivalent of the proficiency expected after three academic years of coursework. In cases in which there is doubt about the currency or the degree of proficiency, such proficiency must be demonstrated by obtaining at least a grade of *B* in the appropriate Foreign Languages 288b course or by obtaining a score of at least 500 on any option of the Graduate School Foreign Language Test given by the Educational Testing Service.

A thesis is required for the M.A. degree in linguistics. The student, in consultation with the departmental graduate adviser, shall propose a topic and a chairman and two other faculty members to serve as the thesis committee; the executive committee of the department must approve the topic and the structure of the thesis committee. The chairman is to be a member of the graduate faculty of the Department of Linguistics. One or both of the other committee members may be from

outside the department. The topic of the thesis may come from the major field of linguistics, or from the area of the student's minor, with the stipulation that the topic be demonstrably related to the major in linguistics. In the latter case, the thesis committee may be co-chaired by a faculty member outside the Department of Linguistics. In addition to the copies required by the Graduate School and requested by committee members, the student must submit a copy of the thesis to the department.

The total credit requirement is a minimum of 32 credit hours; a minimum of 15 of these hours must be at the 500-level. Students are encouraged to attend the summer linguistic institute of the Linguistic Society of America; credit will be allowed for course work successfully completed.

Major Requirements: the following 19 hours of linguistics:

405 Phonological Theory	4
408 Syntactic Theory	4
415 Sociolinguistics	3
506 Historical Linguistics	4
550 Seminar in Linguistics	4
Thesis requirement:	
599 Thesis (minimum 3, max. 6 hrs.)	3
Minor requirement:	
10 hours of courses relevant to linguistics	10

A wide variety of courses which will interest the linguistics major is offered both within and outside the department. In consultation with an adviser, the student should structure a coherent minor. Possible areas are psycholinguistics, sociolinguistics, language, and culture, language area studies, instrumental phonetics, language and literature/stylistics. If the student with a major in linguistics wishes to choose English as a Foreign Language as a coherent minor, the department requires the following:

Minor in English as a Foreign Language (for linguistics majors), 10 hours	
570 Theory and Methods of EFL/ESL	3
580 Seminar in Special Problems of EFL/ESL	3
581 Practicum in EFL/ESL: Oral English	2
585 Practicum in EFL/ESL: Written English	2

If the student can demonstrate equivalent experience or academic credit for any of the above course requirements, other appropriate courses may be substituted to make up the total number of required hours.

Master of Arts Degree in English as a Foreign Language

Applicants for admission to the English as a Foreign Language program who are not native speakers of English must have an undergraduate concentration in English language or literature, or the equivalent in practical experience. They must also demonstrate spoken and written proficiency in English, which is measured by department diagnostic examinations given when students enter the program. Students not able to pass these tests must take suitable remedial work provided for by the department. The Master of Arts Degree will be awarded to non-native English-speaking students only when they have demonstrated satisfactory proficiency in spoken and written English, in addition to meeting the regular degree requirements.

All students entering the program must demonstrate a minimum level of knowledge of traditional English grammar. This is tested by a department diagnostic examination. Students not able to pass the test must undertake prescribed individual grammatical study until they are able to attain the required proficiency level.

The EFL program at Southern Illinois University is uniquely different from

many such programs in the way it blends theory and practical matters; it prepares the student intellectually as well as experientially, so that the student will be capable not only of conducting a class in English, but of making the decisions necessary for choosing among competing approaches, conflicting situations, and unforeseen activities. The methodology sequence of the EFL program is based upon the application of theoretical linguistics to EFL pedagogy. In addition, the EFL program provides for practice in control of gestures, tone of voice, and tempo of class management as practical aspects of pedagogy. Thus, graduates of this program are prepared to be teacher-trainers as well as classroom teachers.

As a vital part of the graduate training program in EFL, all students in that program are required to engage in practice teaching assignments through enrollment in Linguistics 581 (practicum in EFL/ESL: Oral English) and Linguistics 585 (practicum in EFL/ESL: Written English). These courses are designed to enable the student to carry out practice teaching responsibilities in the Linguistics 100 (Oral English), Linguistics 101, 102, 103, 290 (composition for foreign students), classes in oral or written English at CESL, tutorial work in the English remedial workshop, (i.e. the writing clinic or developmental skills), or undergraduate grammar courses (i.e. GSD 104). The purpose of these practice courses and practice teaching assignments is to expose students to some of the types of teaching activities they will ultimately be engaged in after they receive their degrees.

The total credit hour requirement is a minimum of 32 credit hours. A minimum of 15 of these hours must be at the 500-level.

Required courses: (10 hours of EFL courses; 7 hours of linguistics courses)

570	Theory and Methods of EFL/ESL	3
580	Seminar on Special Problems of EFL/ESL	3
581	Practicum in EFL/ESL: Oral English	2
585	Practicum in EFL/ESL: Written English	2
<i>Total</i>		10
401	General Linguistics	4
402a	Articulatory Phonetics	3
<i>Total</i>		7

Approved electives: (15 hours, at least 9 of which must be chosen from the following list)

571	Language Laboratories	2
572	Materials Preparation in EFL/ESL	2
501	Contrastive Linguistics	3
403	English Phonology	3
408	Syntactic Theory	4
415	Sociolinguistics	3

The additional 6 hours of electives may be chosen from the above list, from other linguistic department offerings, or, in consultation with the departmental graduate adviser, courses in other departments which may be related to the student's program and interests.

All EFL students who are native speakers of English must have the equivalent of one semester of study of a modern language (including exotic language) within the preceding five years, (excluding high school). This study may have been academic or direct experience (living in another country) with formal study (e.g. Peace Corps classes, FSI, Army language schools). In default of such background, the student must register for at least one semester of study of a modern language at SIU. Enrollment in an undergraduate level course for credit or for audit satisfies the requirement. Foreign students in recognition of their experience in learning English, are exempt from this requirement.

A thesis is not required for the MA degree in English as a foreign language; however, such a candidate may optionally choose to write a thesis. In that case, the thesis policy and guidelines for the MA in linguistics apply. A research report is required in lieu of a thesis. The research report may have been prepared as a term paper for any advanced course, must have earned an *A* or *B*, must give evidence of the candidate's ability to do research reporting, and must be in acceptable form. In addition to the copy/copies required by the Graduate School, the student must submit a copy to the department.

A certificate of attendance will be granted to those students who do not satisfy the graduation GPA requirement (3.0) or the comprehensive examination requirement.

Mathematics

Graduate work in mathematics is offered leading to the Master of Science, Master of Arts, and Doctor of Philosophy degrees in mathematics. A program may be developed for a teaching specialty in mathematics in the Master of Science in Education degree in secondary education or in higher education. Minor work for graduate degrees in other fields, which allow for a minor, is also offered. In addition to general rules, regulations, and requirements of the Graduate School, the following specific requirements pertain to the degrees available in mathematics.

Acceptance for graduate study in mathematics and subsequent continuation in the graduate program are at the discretion of the Department of Mathematics, provided that the student has been admitted to the Graduate School and meets the retention standards of the Graduate School. For unconditional acceptance the student will be expected to have taken a sufficient number of undergraduate courses in mathematics, including a course in linear algebra, in preparation for the graduate program, as would be in the case of a strong undergraduate major in mathematics or a minor in mathematics with a major in a related discipline.

Students will also be expected to have completed a year of French, German, or Russian or to have a working knowledge of a computer programming language (such as is covered in Computer Science 202 and either 302 or 311). A student who does not fully meet these conditions may be admitted conditionally but will be expected to remedy any deficiencies in undergraduate preparation.

Master of Science Degree

1. Graduate credit must total at least 30 semester hours of which at least 15 must be at the 500 level. This will ordinarily be in courses offered by the Department of Mathematics unless an approved minor is taken outside the department; in this case at least 21 semester hours of graduate credit must be in courses offered by the Department of Mathematics. (One such approved minor in Operations Research-Management Science consists of courses BA 501, BA 541, BA 544.)
2. The candidate's program must include at least one course from each of four of the following areas: (i) pure and applied algebra; (ii) pure analysis; (iii) applied analysis; (iv) geometry and topology; (v) probability and statistics. This requirement may be met in whole or in part by means of courses taken elsewhere prior to acceptance for graduate study in the department; such courses must be judged comparable to corresponding 400 or 500 level courses offered by the department.
3. The student must demonstrate ability formally to communicate mathematical concepts either by preparing a research paper (3 hours credit in Math 595) or by successfully completing at least two semesters of the master's seminar, Math 550k (a total of 3 hours credit required), including the preparation of a research report based on one of his seminar presentations.

4. At the completion of the program, the student must demonstrate satisfactory performance on an oral examination based on course work and a research paper or report. The examination will be administered by a committee appointed by the chairman of the department.

Master of Arts Degree

1. Graduate credit must total at least 30 semester hours of which at least 15 must be at the 500 level. This will ordinarily be in courses offered by the Department of Mathematics.
2. The candidate's program must include at least one course from each of four of the following areas: (i) pure and applied algebra; (ii) pure analysis; (iii) applied analysis; (iv) geometry and topology; (v) probability and statistics. This requirement may be met in whole or in part by means of courses taken elsewhere prior to acceptance for graduate study in the department; such courses must be judged comparable to corresponding 400 or 500-level courses offered by the department. The candidate must take each of the courses (or have taken the equivalent elsewhere) Math 419, 421, 433 or 437, 452, and at least four mathematics courses at the 500 level.
3. The candidate must demonstrate ability to read mathematical literature in French, German, or Russian. This requirement may be met in any of the following ways: (1) by passing an examination given by the Educational Testing Service of Princeton, New Jersey; (2) by passing an examination given by the foreign language examining committee of the mathematics department; (3) by passing with a grade of *B* or better, the b part of the research tool course (in the language elected) offered by the Department of Foreign Languages and Literatures.
4. The candidate must write a thesis carrying 3 to 6 semester hours of credit in Math 599.
5. The candidate must exhibit distinguished performance in course work, the thesis, and on an oral examination based on them given at the completion of the program. The examination will be administered by a committee appointed by the chairman of the department.

Doctor of Philosophy Degree

A student will be considered for acceptance into the Ph.D. program if above average performance in graduate work has been demonstrated comparable to that required for a master's degree at most American universities.

Once accepted, the requirements are:

1. Satisfactory performance on a comprehensive examination in three areas of mathematics over material commensurate with that covered in three 500 level courses not including 514, 515; at least two of the areas must be selected from those represented by Math 501, 520, 530, 555. The examination will normally be taken in August at the beginning of the student's second year in the Ph.D. program.
2. Demonstrated reading competence in mathematics in two of the three languages: French, German, Russian. One language may be replaced by passing Computer Science 302 or 311 with at least a grade of *B*. The language requirement may be met in any of the following ways: (1) by passing an examination given by the Educational Testing Service of Princeton, New Jersey; (2) by passing an examination given by the foreign language examining committee of the mathematics department; (3) by passing with a grade of *B* or better, the b part of the research tool course (in languages elected) offered by the Department of Foreign Languages and Literatures.
3. Completion during the first year in the program of any of the courses 501, 520, 530, 555 not previously taken at SIU at Carbondale or elsewhere at an equivalent level. Course work must include 12 hours in one field as a major

concentration and 6 hours in each of two other fields (minors) from the following list: algebra; analysis; applied mathematics; differential equations; logic; number theory; probability and statistics; topology and geometry. The course work in the major and minor areas must be at the 500 level and be exclusive of the courses 501, 520, 530, 555.

4. Satisfactory performance on a preliminary written and oral examination on the student's major and minor areas. The written exam will be confined to the student's major area; the oral exam will cover both major and minor areas. The preliminary examination will ordinarily be taken after completion of the language (research tool) requirement and 24 hours of credit in the program. However, the student should pass his preliminary examination by the end of the academic year following that in which he passed his comprehensive examination.
5. A dissertation (representing at least 24 hours of credit in Mathematics 600) demonstrating the candidate's capacity for original and independent research in the concentration chosen from the following list: algebra; analysis; applied mathematics; differential equations; probability and statistics; number theory; topology and geometry. This list is subject to change due to changes in the graduate faculty. Candidates must pass an oral examination on their dissertation.

Microbiology

The Department of Microbiology offers graduate work leading to the Master of Arts and Doctor of Philosophy degrees in microbiology. The programs are designed to provide a basic knowledge of the field of microbiology as well as to allow each student to specialize in some particular area of study with the goal of developing microbiologists with a broad perspective and scientific sophistication who will advance human knowledge and meet the changing needs of society.

Admission and Advisement

Prospective graduate students must submit separate application forms obtainable from the Graduate School and the Department of Microbiology. Graduate Record Examination (GRE) scores and three letters of recommendation are required as part of the departmental application.

Admission to the doctoral program in microbiology requires a master's degree, or its equivalent, a minimum grade point average in graduate work of 3.25, and approval by the department.

The departmental graduate adviser will assist each student with the initial planning of a program of study, including required courses, anticipated dates for fulfillment of specified requirements, etc. The adviser will also assist the student in arranging for a graduate faculty advisory committee and its chairman to assume the continuing responsibility of planning the program of study and directing the research project for the degree.

Master's Degree

Each candidate for the master's degree is required to complete 30 semester hours of acceptable graduate credit, an approved thesis, and pass a comprehensive examination. Most students require two years to complete the work for a master's degree.

At least 15 of the 30 semester hours must be in courses numbered 500 or above. Within the 15 semester hours of 500 level credit, each student must successfully complete 10 semester hours of credit selected from departmental courses numbered 502, 504, 505, 540, 542, 551, 562, 564, taken once.

The remaining credit hours requirements may be elected from the 400 and 500 level courses in the department or *other* departments with the approval of the

graduate adviser. Additional credits may be earned in courses 504 and 505 provided that they are repeated with different instructors.

During each semester, every graduate student is expected to register for Microbiology 500 (Seminar) either for credit or audit.

Copies of the draft thesis must be submitted to the advisory committee and the department chairman at least six (6) weeks before commencement. Each candidate for a master's degree is required to pass a comprehensive final examination administered by the advisory committee. The approved thesis, in final form, must be submitted to the dean of the Graduate School at least three (3) weeks before commencement.

Doctoral Degree

Each prospective candidate for the doctorate is required to complete 96 semester hours of acceptable graduate credit including 24 hours of dissertation credit, satisfy the statistics requirement, pass the qualifying examination, write and defend an acceptable dissertation based on a laboratory research problem, and spend at least two consecutive semesters in residence after admission to the doctoral program and before admission to candidacy.

All students will be expected to complete a core of courses consisting of 403-2, 404-2, 425a,b-4, 426a,b-4, 441-3, 442-2, 451-3, 452-2, 460-3, and 461-3, or their equivalent.

The remaining credit hour requirements may be elected from the 400 and 500 level courses in the department or other departments with the approval of the advisory committee.

During each semester, every graduate student is expected to register for Microbiology 500 (Seminar) for credit or audit.

Students may petition the department to accept credit earned in the master's program toward the credit requirements of the doctoral program.

The microbiology department requires that all students enrolled in the doctoral program present evidence of competence in statistics by earning a grade average of *B* in a series of courses or by passing a proficiency exam (administered by the course instructor) equivalent to one of the series of courses as follows:

1. Guidance 506 and 507
2. Mathematics 483 and 487
3. Mathematics 514 and 515

Students must satisfy the statistics requirements before taking the qualifying examination. After passing the qualifying examination, the student is advanced to candidacy for the doctorate.

The qualifying examination will consist of the three parts which are indicated below.

1. General Microbiology

This examination will be constructed and graded by the entire faculty.

2. Area of Concentration

The nature of this area, either a departmental or interdisciplinary speciality, shall be determined by the student together with his advisory committee and the chairman. The examination shall be prepared and graded by the chairman of the advisory committee.

3. Outside Area

The nature of this area, involving one or more departments or areas outside of the department shall be determined by the student, together with his advisory committee and the chairman. The examination shall be prepared and graded by a faculty member outside of the department.

In order to pass the qualifying examination, students must satisfy every member of the examining committee. If they fail to do so, they will fall in one of three categories. (1) They may fail and be denied a re-examination. (2) They may fail and be given an opportunity to be reexamined after an interval of time agreed upon by

the student and the chairman of the committee. (3) They may be required to repeat a part of the examination. This re-examination will be conducted by the member(s) dissenting from passing the student initially.

Students working towards the doctoral degree should consider the following steps applicable to the dissertation:

1. The student and the chairman of the advisory committee determine the general nature of the research problem.
2. After formulation, the problem should be discussed with the advisory committee before extensive work is done. A discussion of the problem may be presented in a departmental seminar.
3. Periodic meetings of the student with his advisory committee are encouraged.
4. Copies of the draft dissertation should be available to the advisory committee at least *two months* prior to the deadline established by the Graduate School. The dissertation must be defended by the student in a public oral examination. The approved completed dissertation is transmitted to the dean of the Graduate School.

Mining (Coal Extraction and Utilization) Engineering

A graduate program leading to a Master of Science degree in mining (coal extraction and utilization) engineering is available in the School of Engineering and Technology for students who are interested in coal extraction and utilization. The program is administered academically by a program committee. Course offerings and research activities include:

Coal Extraction—mine ventilation and environment control, mine extraction systems, strata control and rock mechanics, mine management, design of mine machinery

Coal Utilization—coal preparation processes, coal conversion and combustion processes

Environmental Effects—mine-waste management, emission control engineering, waste-heat management, mining and the environment

Basic Science Related to Coal Mining—coal geology, hydrology, coal chemistry

Admission

Students seeking admission to the graduate program in mining engineering must meet the admission standards set by the Graduate School. In addition, a bachelor's degree in engineering or its equivalent is required for admission into the program. A student whose undergraduate training is deficient may be required by the Program Committee to make up coursework without graduate credit.

Requirements

A graduate student in mining engineering is required to develop a program of study with a graduate adviser and establish a graduate committee of at least three members at the earliest possible date. The graduate committee must be approved by the mining engineering program committee. For a student who wishes to complete the requirements of the master's degree with a thesis, a minimum of thirty semester hours of acceptable graduate credit is required. Of this total, eighteen semester hours must be earned in the mining engineering major. Each candidate is also required to pass a comprehensive examination covering all of the student's graduate work including thesis.

If a student prefers the non-thesis option, a minimum of thirty-six semester hours of acceptable graduate credit is required. The student is expected to take at least twenty-one semester hours in the mining engineering major including no

more than three semester hours of the appropriate Mining Engineering 592 course to be devoted to the preparation of a research paper. In addition, each candidate is required to pass a written comprehensive examination. The graduate committee of a student who is in the non-thesis option will:

1. Approve the student's program of study,
2. Approve the student's research paper topic,
3. Approve the completed research paper
4. Administer and approve the written comprehensive examination.

Graduate students in Mining Engineering are required to take one term of internship in coal industries, research institutes, or governmental agencies for practical experience during the early stages of their advanced study. For this activity, the student will earn appropriate credits (up to 3 semester hours) as determined by the instructor.

Every student is required to enroll in the course MNGE 550 for one term and to submit a term paper describing the work conducted and knowledge gained during the internship period.

Assistantships and fellowships are available for qualified applicants. Additional information about programs, courses, assistantships and fellowships may be obtained from the School of Engineering and Technology.

Molecular Science

Molecular Science is an interdisciplinary program designed to provide advanced education for those students who desire to pursue scientific careers which require understanding at the molecular level. The program encompasses a number of interdisciplinary areas such as: atomic-nuclear-molecular science, biochemistry, biophysics, geochemistry, geophysics, materials science, theoretical physics and applied mathematics, and molecular biology.

Students may enter the program from diverse educational backgrounds including the physical, engineering, and life sciences, and mathematics.

Admission to Graduate Study

Qualified students holding the baccalaureate degree in any of the physical sciences, life sciences, mathematics, or engineering are admissible to graduate study in preparation for subsequent admission to doctoral candidacy in molecular science. In addition to the other subject matter they may have studied, students should have the following background:

Mathematics — at least two semesters of calculus

Chemistry — through organic chemistry

Physics — two semesters of calculus-based physics

Biology — two semesters of biology above the level of General Studies.

Since the program in molecular science is interdisciplinary and broadly based, it is anticipated that many students entering the program will not have the background indicated above. The deficiencies in these areas must be corrected. This can be done either by taking the appropriate course work, or by proficiency examinations administered by members of the molecular science faculty or the appropriate department.

The First Year of Graduate Study

During the first year the student will enroll in three five-semester hour courses in molecular science. An unusually well-qualified student may meet the requirements of these courses by passing appropriate examinations. These are the only courses, other than dissertation, which are required for the Ph.D. degree in molecular science. Thus, all mandatory course work may be completed during the first

year of study. To round out the first year program the student, with the aid of an adviser, will select other courses relevant to molecular science.

Retention in the Program

After completion of the three courses in molecular science, the performance of each student in these courses and in remedial and supplementary courses will be evaluated by the executive committee. The executive committee will make a decision on the continuation in the program for each student. Affirmative action by the committee certifies the student to be qualified to undertake further study in molecular science.

Admission to the Molecular Science Program

Admission to the Ph.D. degree program in molecular science requires a master's degree or its equivalent from any of the physical or life sciences, mathematics, or engineering. In addition the student must have a grade point average in graduate work of at least 3.25, and complete the first year of study with certification of the executive committee, as described above.

A student who does not have an appropriate master's degree will seek master's equivalency from the Graduate School, usually by the end of his second year of graduate study. Application for master's equivalency requires (a) completion of 30 semester hours of acceptable graduate credit, at least 15 hours of which must be courses numbered 500 or above, and (b) completion of an approved research paper which demonstrates evidence on the student's knowledge of research techniques, and which is based on a special research project.

Admission to Candidacy for the Ph.D.

Permission to apply to the Graduate School for admission to candidacy for the Ph.D. degree requires the satisfactory completion of the research tool requirement and the passing of the Ph.D. preliminary examination.

The research tool requirement is intended to be an integral part of the student's program. The molecular science program requires a single research tool. The student can satisfy this requirement either by passing the ETS examination in French, German, or Russian languages, or by demonstrating competence in computer programming.

The degree of a student's command of the basic disciplines dealt with in the molecular science program at the graduate level is checked by means of a preliminary examination before he or she is admitted to candidacy for the Ph.D. degree. The examination consists of a written part followed by an oral examination. The student will be asked to indicate which three areas among the six listed below to be tested on:

- (a) Quantum Theory — Molecular Spectroscopy
- (b) Statistical Mechanics — Thermodynamics
- (c) Materials Science
- (d) Applied Mathematics
- (e) Biochemistry
- (f) Biophysics

In addition, students will be examined in depth by written test on a specialty area of their choosing.

Requirements for the Ph.D. in Molecular Science

A candidate for the Ph.D. degree must meet the general requirements as set forth by the Graduate School. Specifically, he must submit a dissertation and defend it with distinction before a dissertation committee.

For complete details, the chairman of the molecular science program should be consulted.

Music

The School of Music offers programs leading to the Master of Music degree and to the Master of Music Education degree. Each master's degree requires a minimum total of 30 credits, with a minimum total of 15 credits at the 500 level. Students enrolled in a program leading to a Ph.D. degree in education, with a concentration in secondary education, may choose the elective portion of their programs from graduate courses offered in the School of Music.

Master of Music Degree Standard Curricula

History-Literature. Majors complete Music 501-3; 502-4 (2, 2); 2 credits in 414 or other performing ensembles; 6 credits selected from 475, 476, 477, 573, 574, or 578; 599-6; 6 credits in music history-literature electives; 3 elective credits in non-music history-literature courses.

Theory-Composition. Majors complete Music 501-3; 502-4 (2, 2); 545-3; 3 credits from the 470 or 570 series; 480-4 (580-4 must be completed by composition majors); 2 credits selected from 566, 414, 567, or 568; 599-6; 5 credits of approved music electives in theory-composition, history-literature, conducting, or performance.

Performance. Majors complete Music 501-3, 502a or b (2); 5 credits from 461, 482, or 470-570 series; 8 credits in 540 (440 is specializing in pedagogy); 2 credits from 566, 414, 567, or 568 (or other electives if keyboard major); 6 credits in 595 and 598 (recital and document); 4 credits in non-performing music electives. If specializing in conducting, majors must complete Music 501-3; 502-4 (2, 2); 556-4 (2, 2); 3-6 credits from the 470-570 series; 2-4 credits in 440; 2-3 credits from 566, 414, 567, or 568; 6 credits in 595 and 598 (recital and document); 3 credits in music electives.

Opera/Music Theater. Opera and music theater majors must have an undergraduate degree in music with appropriate experience in opera or music theater, or in theater with additional music study sufficient to qualify in performance, theory, and history of music. Majors complete Music 468-2; 4 credits from 567 or 568; 12 credits selected from 440-540, 461, 501, 570, 556, 567, 568; six credits selected from Theater 402a, b; or 404; 409; 412, 415, 417; 432; 505; and six credits from Music 499 and 595; or 598 and 595; or 599.

Master of Music Education Degree Standard Curriculum

Majors complete Music 503-3 (or 501-3); 502 a or b (2); 4-5 credits from 509, 550, or 460; 7-8 credits selected from music education courses; 2 credits from 566, 414, 567, or 568; 5 credits elected from non-music education courses including at least one course from 410, 482, or the 470-570 series; 599-6 or six credits from 499 and 595; or 595 and 598; or from approved electives in music or related fields.

General Information

Fees. Fees are not charged for individual instruction, practice rooms, or instrument lockers. Instruments are loaned without charge when needed. Student expenses for music, textbooks, and other incidental supplies usually range from \$30 to \$60 per term.

Advisement. After initial advisement by the graduate coordinator in music, each entering student will be assigned a faculty adviser. The adviser for a student with a performance major will normally be the student's instructor in performance. Assignments of advisers in music theory, education, and history literature will be

made on a rotational basis from faculty in those areas, unless otherwise requested by the student. The faculty adviser supervises the overall planning of the student's program and consults with the student and the graduate coordinator in regard to the eventual designation of a document or thesis director.

Diagnostic tests in music theory and history are given during orientation at the beginning of the fall semester and must be taken by all students at the first opportunity after admission. The student with weaknesses in certain areas may be asked to take specialized work in those areas. A student will be accepted as a performance major in the Master of Music degree program after satisfactory audition in person, either before admission or during orientation. A performance major may be conditionally accepted on the basis of a tape recording; but a student accepted conditionally may be asked to audition in person during orientation or during the first term of residence, and may be required to register at the 400 level in performance until approved by personal audition. Current brochures from various performance areas and the *Graduate Handbook in Music* describe the level of repertory expected, audition procedures, and diagnostic tests.

Exceptions to Degree Requirements. Appropriate substitutions in or for the curricula for either the Master of Music degree or the Master of Music Education degree may be made if recommended by the student's adviser and approved by the graduate committee in music. Students who expect to earn more than half of their credits during summer terms only, or by a combination of summer attendance and night classes, may similarly propose a specialized sequence of course offerings, following the above curricular patterns as far as possible. All specialized curricula must meet Graduate School requirements and be approved by the graduate committee in music. Special summer students changing plans and registering for more than one regular fall or spring semester will ordinarily follow the appropriate standard curriculum.

The Thesis, Document, and Research Paper. All Master's degree candidates will complete either (1) a thesis, or (2) a large, original composition and document, or (3) a full recital performance and document, or (4) courses which involve research papers or creative projects demonstrating professional abilities equivalent to the above.

No later than the beginning of the semester preceding the semester in which the student expects to graduate, the graduate coordinator—in consultation with the student and the student's adviser—will designate a document or thesis director from the current list of graduate faculty serving in that capacity. Exceptions to this procedure must be approved by the music graduate committee. The document or thesis director guides the student's choice of topic and is responsible for the progress and quality of the resulting work. The document director normally heads the student's orals committee. Before extensive work is done on the thesis or document, the student submits a proposal, together with a selective bibliography where applicable and the reactions of the document or thesis director, to the coordinator of graduate studies in music for approval by the graduate committee. Changes of topic or of document director after initial approval must be approved by the music graduate committee.

Graduate Recital (598-4) is supervised by a jury of at least three members, headed by the student's instructor in performance or adviser. This jury approves the level of literature to be performed and the quality of performance by audition in advance of the final performance, the acceptability of which must also be judged by the performance jury.

Although the Master of Music Education degree does not require a thesis or document, the student may elect to write one and enroll in Music 599 or 595.

Students working toward the Master of Music Education degree who do not elect to write a thesis or document must complete six hours of course work including

research terminating with a paper or papers following thesis style. These research papers are filed with the graduate coordinator for music.

Three copies of all theses, thesis-composition manuscripts and tapes, documents, and research papers must be submitted in final form to the music graduate office at least five weeks before the intended date of graduation, carrying the approval of the document or thesis director, when applicable. The coordinator of graduate studies will forward two copies to the Graduate School and retain one copy. Guidelines for preparing theses and documents are available from the Graduate School and the music graduate office.

Comprehensive Examinations. During the final semester of study, the student will take comprehensive examinations, written and oral, dealing with general areas of music and concentrations of music study, and when appropriate with the student's thesis or document. Application to take comprehensive examinations must be made not later than five weeks before the expected date of graduation, and the examinations must be passed no later than three weeks before graduation. Application for comprehensive examinations may not be made until all other requirements, with the exception of terminal-semester courses, for the degree have been satisfied. A failed section of the comprehensive examinations may be taken again in a following term.

The oral examination committee, appointed by the coordinator of graduate studies in music, is headed by the student's document or thesis director, with two or more faculty members representing the student's areas of concentration to assist, as requested by the student. If the student has scheduled six or more hours in a department other than music, a member of this department will be invited to serve on the examining committee. The examination committee will conduct the student's oral examination and may supply questions for the student's written examination under the general supervision of the music graduate committee.

Occupational Education

(See Vocational Education Studies for program description.)

Philosophy

The Department of Philosophy offers graduate work leading to the Master of Arts and Doctor of Philosophy degrees. Graduate courses in philosophy may be used also as a minor in programs leading to the Master of Arts or Master of Science in Education degrees. Students who do not plan to continue work in philosophy beyond the master's degree level are encouraged to elect a graduate minor or to combine philosophy with another subject in a 40-hour double major.

All graduate students in philosophy are expected to have some supervised experience in teaching basic work in the field, either through regular teaching assistantships or through special assignments. Opportunities for intern experience at area junior or community colleges are made available.

Admission

Admission to the philosophy graduate program requires the following:

1. An application form to be sent to the Graduate School.
2. Three official transcripts of the applicant's record to be sent to the Graduate School.
3. Three letters of recommendation from individuals familiar with his/her work should be requested by the applicant to be sent to the department's director of graduate studies.

4. Scores for the Graduate Record Examination verbal and quantitative aptitude tests to be submitted by native English speaking applicants to the graduate school. Doctoral applicants should also submit scores on the GRE advanced test in philosophy. The department may, where other evidence of competence seems so to warrant, accept a candidate on the condition that he/she later submit acceptable scores. Foreign-born applicants from countries where English is not the native language should submit TOEFL scores in lieu of GRE scores to the office of foreign admissions.

The department expects an applicant for admission to its graduate program to have had at least 15 semester hours work in philosophy or closely related theoretical subjects, including at least one semester in ethics, one in logic, and a year in the history of philosophy. The department may waive a portion of this requirement in favor of maturity and of quality of breadth of academic experience. The applicant will be required to make up serious background deficiencies by taking appropriate undergraduate philosophy courses without credit.

Applications for fellowships and special doctoral assistantships should be sent to the department by February 1 of the academic year preceding that for which application is made. Applications for departmental graduate assistantships should be sent to the department by April 1 of that year.

Master of Arts Degree

The department's M.A. degree program is designed both for students wishing to continue on for a Ph.D. degree within a pre-doctoral program and those who plan to receive a terminal masters degree. For the latter students the department offers increased opportunities for electives in the field of education or in subjects related to philosophy.

Pre-Doctoral Program. In order to receive an M.A. degree within a program leading to the Ph.D. degree the student must fulfill the following requirements:

1. Complete 30 semester hours of course work in philosophy or allied fields, 6 of which may be credited towards preparation of a thesis.
2. Demonstrate competence in formal logic during the first year of residence either through appropriate course work or by passing with a grade of *B* or better an examination equivalent to the Philosophy 320 final suitably supplemented with additional materials on Aristotelian logic.
3. Pass an M.A. comprehensive examination on the history of philosophy to be taken no later than in the Fall semester of the student's second year of graduate work.
4. Demonstrate reading knowledge of one foreign language, usually French or German, by passing a proficiency examination in that language or by passing the appropriate 288b foreign language course with a grade of *B* or better.
5. Fulfill a research writing requirement by either: a) writing an M.A. thesis of approximately 50 pages; or b) submitting three edited research papers written in conjunction with graduate seminars. This requirement should normally be met no later than one's second year of residence. The candidate for the M.A. degree will take an oral examination conducted by a three-member faculty committee on the subject of his/her research.

Teaching Masters Program. In order to receive an M.A. degree within a program designed to prepare students for two-year college teaching the student must:

1. Complete 30 semester hours of course work, 9 of which may be taken outside the field of philosophy in either the Department of Higher Education or in fields related to philosophy approved by the department's director of graduate studies.
2. Demonstrate competence in formal logic as in 2 above.
3. Pass the department's M.A. comprehensive examination on the history of philosophy as in 3 above.

4. Fulfill the department's research writing requirement described in 5 above. Students within this program are not required to demonstrate reading knowledge of a foreign language.

Doctor of Philosophy Degree

The Ph.D. degree in philosophy is designed to prepare students for college teaching and for research in their field of study. To enter the doctoral program leading to this degree the student must have received an M.A. degree in philosophy at either Southern Illinois University or some other institution.

In order to receive the Ph.D. degree the student must fulfill the following requirements:

1. Complete 30 semester hours of course work in philosophy or allied fields beyond the M.A. degree.
2. Demonstrate competence in formal logic during his first year of residence as required for the M.A. degree.
3. Demonstrate a background in the history of philosophy by passing the department's M.A. comprehensive examination on the history of philosophy. Incoming doctoral students will be expected to take this examination prior to taking the preliminary examination.
4. Fulfill a research tool requirement in one of the following ways: a) demonstrating a reading knowledge of two foreign languages by proficiency examination or by passing the appropriate 288b language courses with grades of *B* or better; b) showing an appropriately higher proficiency in one language; or c) demonstrating a reading knowledge of one foreign language and completing satisfactorily at least two courses at the graduate level in an outside area approved by the director of graduate studies. These courses do not count toward the fulfillment of 1 above.
5. Pass a written preliminary examination on the following four areas: metaphysics; epistemology and philosophy of science; value studies (ethics, social philosophy, and aesthetics); and an area of historical specialization. This examination will normally be taken only after the student has accumulated at least 24 hours of credit beyond the M.A. degree.
6. Write a doctoral dissertation under the supervision of a faculty dissertation committee. This dissertation is started only after the student has completed 30 hours of work beyond the M.A. degree and has been admitted to candidacy for the Ph.D. degree. After the dissertation has been accepted by the candidate's committee, the student is given an oral examination on the dissertation and related topics.

Physical Education

Graduate courses in physical education are offered toward the Master of Science in Education degree in physical education or toward a concentration for the Doctor of Philosophy degree in education. In addition, students may elect courses in physical education to complete requirements for a minor when their program of study allows for a minor.

The minimum number of hours required in physical education at the master's level is 20 for a major or 10 for a minor. The total number of hours required for the master's degree is a minimum of 30 semester hours.

Master's Degree

The departmental requirements for unconditional admission as a master's degree candidate are:

1. Fulfillment of the requirements for admission to the Graduate School.
2. Presentation of at least the equivalent of an undergraduate minor (preferably a major) in physical education.

3. Presentation of at least one undergraduate course in kinesiology and at least one in educational psychology or psychology of the particular field of the student's specialty.
4. Possession of the ability to teach and demonstrate an acceptable variety of skills and techniques in physical education activity.

A student may be conditionally admitted to the program and may be permitted to do graduate course work while he removes deficiencies.

Requests for transfer of credits from other institutions will be considered by the department only before the completion of the first term of enrollment.

Minor

Students with a major in a related area may take a minor in physical education. This consists of 10 hours chosen from one of the areas of concentration in consultation with a physical education adviser.

Requirements

The Department of Physical Education offers programs in several areas. Core courses common to all concentrations are P.E. 500, 503, and either 592 or 599. The courses are designed to provide common experiences to all students regardless of their specialization. For 599 three copies of the thesis must be bound and deposited with the department. Two unbound copies are deposited with the Graduate School.

Areas of Concentration

THE EXPERIMENTAL PHYSICAL EDUCATION PROGRAM

This program is intended to prepare students to enter advanced study and to perform scholarly research which emphasizes depth in a selected science. A student, in conference with an adviser, designs a program which satisfies the student's special interest.

THE PROFESSIONAL PHYSICAL EDUCATION PROGRAM

This program is designed to develop a high level of competency in teaching physical education in colleges, secondary, and elementary schools. The student, in conference with an adviser, designs a program which satisfies the student's special interest.

THE APPLIED PHYSICAL EDUCATION PROGRAM

The purpose of this program is to prepare coaches of athletic teams to (1) increase their knowledge of fundamental principles which are basic to the coaching and administration of athletics and (2) to develop a broad perspective of the role of athletics in the total education environment.

Physics and Astronomy

The Department of Physics and Astronomy offers graduate work leading to the Master of Arts and Master of Science Degrees in physics. Graduate courses in physics may also be taken to satisfy teaching specialty requirements for the Master of Science in Education degree in secondary education or in higher education.

In addition to the general requirements of the Graduate School, the student must complete Physics 500 (or mathematics equivalent), Physics 510, and Physics 520A. Other specific requirements for the master's degrees are as follows:

Master of Arts

This program is designed primarily for those planning to enter a Ph.D. program. A reading knowledge is required in French, German, or Russian as demonstrated by

passing one of the Educational Testing Service's graduate foreign language examinations administered by the University's Student Affairs Research and Evaluation Center.

The M.A. degree in physics will be granted on the basis of a research paper and 30 semester hours of course work, of which 22 semester hours must be at the 500 level. Each candidate for the M.A. degree is required to earn one credit in Physics 581 by lecturing in the graduate seminar and is required to pass an examination, written or oral or both, covering graduate work including the research paper. This examination is given by the student's advisory committee.

Master of Science

This program is specifically designed for those who wish a professional degree and do not plan to continue beyond the master's level. A reading knowledge of a foreign language or demonstrated competence of computer skill is required. This requirement can be met by passing one of the Educational Testing Service's graduate foreign language examinations for the language option or a similar examination for testing computer skill. English can be substituted for either of the above requirements at the discretion of the graduate adviser provided it is not the native tongue of the candidate.

A thesis is required, based upon not more than six nor less than three semester hours of 599-level credit. The 599 credit requirement is in addition to the minimum of 15-hour requirement at the 500 level as stated in this catalog and should be distributed preferably over several terms of enrollment. Each candidate for an M.S. degree is required to earn one credit in Physics 581 by lecturing in the graduate seminar and is required to pass an examination, written or oral or both, covering graduate work including the thesis. This examination is given by the student's advisory committee.

Physiology

Graduate courses in physiology may be taken leading to the Master of Science or the Doctor of Philosophy degrees in physiology. Graduate courses in physiology may also contribute to a program leading to a Master of Science degree in biological sciences or to a teaching specialty for the Master of Science in Education degree in secondary education or in higher education.

The Department of Physiology offers advanced training in mammalian physiology, cellular and comparative physiology, endocrinology and pharmacology, biophysics, and human anatomy. Students entering the graduate training program are advised to plan the course work so as to acquire a broad knowledge of the field before concentrating in one of these sub-disciplines. The advisory system in the department is set up to help the student in planning his work. All graduate training programs in the department are subject to approval of the graduate training committee of the department.

Prerequisites for graduate training with a major in physiology usually include the equivalent of an undergraduate major in one of the biological sciences, plus inorganic and organic chemistry and a minimum of one year each of physics and mathematics. Students with undergraduate training in related areas, such as chemistry, physics, mathematics, computer science, psychology, or engineering are strongly encouraged to consider graduate work in physiology; deficiencies in the requirements listed above can be made up early in graduate training.

Master's Degree

To complete the master's degree in physiology, the student must ordinarily have completed a minimum of 30 semester hours of graduate credit. The student is

required to pass an oral or written examination over the field of physiology and his thesis topic, and must present an acceptable thesis demonstrating ability to perform high quality research under supervision.

Equivalent work completed at other institutions or in other departments may be substituted for a part of the course requirements for graduate work in physiology.

Master's students are encouraged but not required to attain competence in at least one research tool (computer sciences, statistics, electronics, advanced mathematics, electronic microscopy, etc.). Competence may be demonstrated by successful completion of appropriate courses or by private study, as determined by the student's graduate advisory committee. A minor is not required for the master's degree in physiology; however, a student may elect to obtain a minor in any other intellectual area approved by the department.

Doctoral Program

Students entering the doctoral program in physiology should present as a minimum the requirements listed above for the master's degree program. In addition, it is strongly recommended that the doctoral student have completed calculus and physical chemistry. Students with prior training in chemistry, physics, engineering, computer sciences, etc., can usually expect to spend some additional time acquiring the requisite biological sciences background.

For admission to doctoral candidacy, the doctoral student should have completed a reasonably broad spectrum of courses offered by the department, should have acquired a competence in two of the research tools mentioned above, and must have successfully passed a written examination and an oral qualifying examination.

Ordinarily, doctoral students should expect to spend a minimum of three years beyond the bachelor's degree or two years beyond the master's degree, in residence. They will be required to present an acceptable dissertation describing original research performed with minimal supervision and deemed by their graduate committee to be of such quality as to merit publication in the referred literature of the field. A final oral examination will be held over the field of the dissertation.

Plant and Soil Science

The Department of Plant and Soil Science offers programs of study leading to the Master of Science degree in plant and soil science with concentrations in the areas of crop, soil, and horticultural sciences; specialization in environmental studies in agriculture is also available in each of these concentrations. Supporting courses in botany, microbiology, chemistry, statistics, and other areas essential to research in the student's chosen field may be selected. Supporting courses are selected on an individual basis by the student and his advisory committee. Once the general field has been selected, the research and thesis may be completed in any one of the many divisions of that field. In field crops, the research may be directed toward crop production and management, weeds and pest control, or plant breeding and genetics; in horticulture, the research and thesis may be in vegetables, tree-fruits, small-fruits, floricultural and ornamental plants, or turf management; in soils, the research may relate to soil fertility, soil physics, soil microbiology, soil chemistry, or soil and water conservation; in environmental studies, the research may be directed toward sound pollution, water pollution, reclamation of strip-mined soil, or agricultural chemical pollution problems. Often two of these more restricted areas can be combined in one thesis problem.

Students interested in plant and soil science at the doctoral level can be admitted to a program of study leading to the Ph.D. degree in botany. The program, which is administered by the Graduate School through the Department of Botany, is adequately flexible to allow students to explore such interests as plant physiology, plant nutrition, chemical control of plant growth, plant genetics, etc.

The School of Agriculture offers courses in plant and soil science as part of a residence-center program at Western Illinois University.

Admission

Application for admission to graduate study in the department should be directed to the Graduate School. The applicant must have the registrar of each college previously attended send three official transcripts directly to the Graduate School. In addition applicants should send a letter directly to the chairman of the Department of Plant and Soil Science expressing their professional and personal career objectives. Applicants should also request that three persons who can evaluate the student's academic ability write letters directly to the chairman in their behalf. Final admission to the program and a particular concentration administered by the Department of Plant and Soil Sciences is made by the department. Minimal admission requirements to the program are: a) completion of the plant and soil science undergraduate requirements and b) a minimal grade point average of 2.7 ($A = 4.0$). The students who do not meet the requirement of completing the required courses in the undergraduate program in Plant and Soil Science may apply to enroll as an unclassified student to make up these deficiencies. Undergraduate course work taken to correct these deficiencies will not apply to the minimum requirements for the master's degree. Students entering the plant and soil science graduate program with a GPA below 2.70 are accepted on a conditional basis and must enroll in 12 hours of structured courses at the 400-500 level and make a GPA of 3.0 or be suspended from the program.

Program Requirements

Minimum requirements for the master's degree may be fulfilled by satisfactory completion of 30 semester hours of graduate credit. Of the 15 hours required at the 500 level, no more than 10 credit hours of unstructured courses may be counted toward the degree. If the student writes a thesis, 15 semester hours (which may include thesis credits) must be in plant and soil science courses; if the student submits a research paper (non-thesis option), 20 semester hours must be in plant and soil science courses. There is no foreign language requirement.

Each student, whether in the thesis or non-thesis option will be assigned a mutually agreed upon major professor to direct the program. The major professor will serve as chairman of the student's advisory committee which will consist of at least three members from within the department and one member from another department. Each master's degree candidate must pass a comprehensive oral examination covering graduate work including the thesis or research paper. The departmental chairman will always serve on the examining committee.

Political Science

Graduate programs in the Department of Political Science may be designed to lead to a Master of Arts degree in political science, a Master of Public Affairs degree, or a Doctor of Philosophy degree in political science. Graduate work in political science may be taken to satisfy requirements for a teaching specialty for the Master of Science in Education degree in secondary education or in higher education. Graduate work in political science may also serve as a cognate field for a student majoring in another discipline.

Application Procedures

Application for admission to graduate study in political science should be directed to the Graduate School in conformity with the requirements specified in Chapter 1. In addition, supporting materials should be sent to the director of graduate studies, political science department. These materials consist of (1) the personal

and professional data form; (2) three letters of recommendation from persons who can evaluate the applicant's academic ability; (3) a careful explanation of reasons for seeking graduate study; and (4) scores on the Graduate Record Examination (GRE) verbal and quantitative tests. Foreign students applying from abroad are not required to submit GRE scores, but are advised to do so if they are applying for financial assistance. In exceptional cases the GRE may be waived as an admission requirement, but it must be taken at the first offering of the examination after the student enters the program. Application material, including forms for applying for financial assistance, may be obtained from the director of graduate studies, political science department. Applications and supporting materials should be submitted at least four weeks before the term of registration. Those applying for teaching assistantships or fellowships should complete their applications by February 1.

Master of Arts Degree Requirements

Admission. Applicants for the Master of Arts degree program are admitted only with the approval of the graduate studies committee of the department. The department imposes requirements for admission in addition to those of the Graduate School. The department will ordinarily accept as candidates for the Master of Arts degree only those applicants who (1) have graduated from an accredited four year college or university; (2) have completed a minimum of 24 quarter or 16 semester hours in government or political science; (3) have a 2.7 (4-point scale) overall grade point average or, alternatively, have a 2.9 overall grade point average for the last two years of undergraduate work; and (4) have a 3.0 average in government or political science.

Retention. Retention is governed by the rules of the Graduate School. Students should avoid the accumulation of incomplete grades. No student with more than two incomplete grades can be awarded a graduate student appointment, and a student holding a graduate student appointment is subject to having the appointment terminated upon acquiring two or more incomplete grades.

Course work. The director of graduate studies serves as adviser to each M.A. student until an advisory committee has been selected by the student with the approval of the director, normally no later than the middle of the student's first semester in residence. The advisory committee must approve the student's program. The student must earn a minimum of 30 semester hours of acceptable graduate credit to qualify for the Master of Arts degree. A maximum of 12 hours can be earned in 400 level courses. A minimum of 6 semester hours must be completed in each of three of the fields of concentration listed under the Ph.D. requirements. The selection of fields of concentration must be approved by the student's advisory committee.

The student who completes the minimum of 30 semester hours of course work may devote no more than 6 of those hours to courses taken outside of the department unless the work is in an approved cognate area. In the latter case, a maximum of 12 hours in the cognate area may be counted toward the fulfillment of the area and degree requirements.

Each candidate for the Master of Arts degree must complete Political Science 500. Proficiency in one research tool complementing the selected fields of concentration is also required, i.e. statistics, computer science or foreign language. Methods of demonstrating proficiency are the same as those required of Ph.D. students. A student may count a maximum of 6 semester hours of 400 or 500 level tool course work toward partial completion of degree requirements, provided that (1) no more than 6 semester hours of an approved cognate are counted as part of the 30 semester hours and (2) the tool courses are not counted as fulfilling one of the field requirements.

Thesis. In addition to the required course work, the student must submit a thesis, an internship report of thesis quality, or two research papers approved by a department committee as satisfactory demonstration of research ability. A student may receive a maximum of six hours credit for the thesis or internship report, but the student offering two research papers must complete 30 hours of course work. Before registering for thesis or internship credit, the student must have an overall GPA in M.A. work of at least 3.0 (A=4.0) and must have completed the research tool requirement and selected a thesis or internship committee approved by the director of graduate studies. The membership of the advisory committee and the thesis or internship committee need not be identical. A prospectus outlining the research proposed for the thesis or internship report must be approved by the members of the thesis or intership committee and filed with the director of graduate studies. The acceptability of the two research papers offered as an alternative to a thesis shall be determined by a committee consisting of the student's advisory committee and two members of the graduate studies committee appointed by the director of graduate studies.

A final oral examination conducted by the appropriate committee and open to the public will cover the thesis, internship report, or the two research papers and the student's general competence in political science. A student may not take the examination if there are any incomplete grades on record except by petition to the graduate studies committee. If the student fails the examination or if the thesis, internship report, or research papers are rejected, the student may be dropped from the department's degree program or may submit a new or revised thesis, report or research papers, or repeat the examination at the discretion of the examining committee.

Copies of the thesis, internship report, or two research papers should be submitted to the student's thesis, internship or advisory committee members no later than one week before the scheduled final oral examination. A copy of the approved thesis, internship report or research papers must be filed with the director of graduate studies.

Exceptions. An exception from these rules must be justified in a petition approved and signed by the student's committee members, submitted to the director of graduate studies and approved by the members of the graduate studies committee at a scheduled meeting.

Master of Public Affairs Degree Requirements

Applications for admission should be directed to the Graduate School and the director, master of public affairs program, political science department. Graduate Record Examination scores are not required although they are recommended if the applicant wishes to be considered for a fellowship from the Graduate School. To be considered for an assistantship from the M.P.A. program, a letter indicating interest and extent of financial need should be sent to the director prior to April 1, for awards beginning the following Fall. Applications are evaluated by the director, master of public affairs program, and the program's steering committee.

To be considered for admission, applicants must have: (1) graduated from an accredited four-year college or university and (2) received an overall grade point average of 2.7 (4.0 scale) or, alternatively, a 2.9 overall grade point average for the last two years of undergraduate work. In instances where a candidate's promise is indicated by professional experience rather than undergraduate record, consideration will be given on an individual basis to conditional admission. If a candidate's undergraduate background is inadequate preparation for specific graduate courses being planned, it may be necessary to enroll in preliminary or prerequisite courses at the undergraduate or graduate level. Graduate-level courses taken to remedy

undergraduate deficiencies may be applied to the degree on approval of the director.

Retention is governed by the standards of the Graduate School.

Requirements for completing the degree are: (1) satisfactory completion of courses as listed below; (2) completion of 36 semester hours of graduate credit, 15 of which must be on the 500 level; and (3) satisfactory performance in either an agency internship or an applied study project, for which up to 6 semester hours of graduate credit can be earned.

Core courses required of all candidates are advanced public administration, planning and budgeting systems, and advanced policy analysis. Before taking certain advanced courses, students must have acquired a basic knowledge of statistics. In addition, prerequisite courses are required in some instances.

The student must also complete the specified minimum number of hours in each of the following core areas, taking courses in any of several departments of the University which are certified by the director of the program as fulfilling area requirements:

1. Theory (3 semester hours minimum) — Courses in management theory or organization theory.
2. Techniques (6 semester hours minimum) — Courses in accounting, budgeting, public finance, personnel administration, collective bargaining, planning, statistics, computer science, research design and methods, policy analysis, information systems, and operations research.
3. Behavior and Institutions (6 semester hours minimum) — Courses in political, managerial, and organizational behavior, administrative institutions and processes, American government and politics, public policy, economics, sociology, political communication, labor relations, and urban geography.

Additional credits may be completed either in these areas or elsewhere in the graduate curriculum. In selecting these added credits, candidates are encouraged to consider courses in their substantive professional area, e.g., administration of justice, community development, educational administration, forestry, recreation, rehabilitation, social work, transportation and highway engineering, and water resources.

Students who have not taken an undergraduate course in public administration must audit POLS 340-3 or make other satisfactory arrangements. In addition, each candidate must have completed at least one graduate course in American government. The director must approve the student's initial program of study. This program should be tailored, to the extent possible, to the student's individual needs and interests and to those of the agency in which he is employed or intends to be employed, if known. Course work may be taken on a full-time or part-time basis, although all work must be completed within six years.

Candidates who have not had at least one year of professional experience in an approved government agency or related organization must enter an internship arranged or approved by the director. Candidates with one year or more of approved experience must undertake an approved applied study project. For either the internship or project a written report must be prepared, in accordance with a prospectus approved by an advisory committee (formed for this purpose), and filed with the director.

Each candidate shall satisfactorily complete a final oral examination, conducted by the advisory committee and open to the public. The examination may be given only after all course work is complete. It will cover the written report, the major area in which it is written, and the student's general competence in the fields studied. If the examination is failed more than once, the candidate is dropped from the program. A copy of the approved written report must be filed with the director and with the Graduate School before the student's graduation application will be approved.

An exception from these rules must be justified in a petition approved and signed

by the student's advisory committee members, submitted to the director, and approved by members of the program's steering committee at a previously scheduled meeting.

Doctor of Philosophy Degree Requirements

Admission. Applicants for the doctoral degree are admitted only with the approval of the graduate studies committee of the department. In addition to Graduate School and other departmental requirements, the committee ordinarily requires a grade point average of 3.5 (4-point scale) in graduate-level work and adequate background in political science.

Retention. Retention is governed by the rules of the Graduate School. Students should avoid accumulating incomplete grades. Students holding graduate student appointments are expected to make reasonable progress toward a degree. No student with more than two incomplete grades can be awarded a graduate assistant appointment, and a student holding a graduate assistant appointment is subject to having appointment terminated upon acquiring two or more incomplete grades.

Program of Study. The work of a Ph.D. student is directed toward admission to candidacy for the doctorate, for which the student must meet the residency requirement, meet methods and research tool requirements, maintain a GPA of at least 3.5, and pass preliminary examinations in four fields of concentration.

The student must be in residence for at least one year (two semesters in each of which the student completes at least 9 hours or 6 hours if the student holds an appointment) after admission to the Ph.D. program before preliminary examinations can be taken. Residence shall be counted from the time when the student passes the final examinations for the master's degree. An applicant wishing to meet the department's residence requirement by using Option II (see Chapter I of this Catalog) must submit a petition and a proposed program to the graduate studies committee at the time that the student applies for admission to the program.

The student's program must be approved by an advisory committee selected by the student and approved by the director of graduate studies. The members of the advisory committee should represent the student's field of concentration.

The student must take four written examinations with an oral examination following. The fields of concentration are: political theory or methodology; American Government and politics, public administration and policy analysis; comparative government and politics; international politics, law, and organization; a cognate or interdisciplinary field.

The examinations will be taken in four of these fields; or the student may, with the consent of the advisory committee, take examinations within two sub-fields of the field of primary concentration and in two other fields. Thus, for example, a student might take examinations in urban politics and in political parties within the American politics field, and also in international politics and political theory. The student must have completed a minimum of six hours of course work, including not more than three hours of readings or individual research, at the M.A. or Ph.D. level, in each field or sub-field of examination. In addition the student must complete the requirements for two research tools (see below) and the two Political Science 501 research methods courses best complementing the student's fields of study. Students may propose substitutes to the graduate studies committee for approval. The student's advisory committee may require additional course work, in or out of the fields of examination. At least half of all course work must be in 500 level courses.

Preliminary Examinations. Before preliminary examinations can be scheduled the

student must have successfully completed two of the Political Science 501 courses, all coursework, and two research tools, have an overall GPA in Ph.D. work of at least 3.5, and have had an appropriate preliminary examination committee approved by the director of graduate studies. Students may not take preliminary examinations if there are any incomplete grades on their records except by petition to the graduate studies committee.

The four written preliminary examinations are to be completed within a period of ten days; an oral examination follows within one week of the last written examination upon the approval of the examination committee. If the students pass the written and oral examinations, they are advanced to candidacy for the Ph.D.; if they do not pass, they may be permitted to retake the examinations at a later date or be dropped from the degree program of the department, at the discretion of the examination committee.

Research Tools. All Ph.D. degree students must satisfy a statistics tool requirement by earning at least a *C* in both Mathematics 516a and 516b, an interdisciplinary sequence taught by mathematicians, political scientists, and sociologists. Any exception to this statistics tool requirement must be approved by the graduate studies committee, e.g., a student with adequate course work in calculus might propose Mathematics 483 and 487 or 488. The second required tool may be satisfied by selecting either a foreign language, computer science, or a tool designed specifically for the student's research interest and approved by the student's advisory committee and the graduate studies committee. A tool field may be offered as a preliminary examination field only if (1) it does not include the course work used to fulfill the tool requirement; (2) it is of a more advanced level of expertise than that assumed for the tool requirement (at least one more year of advanced coursework); and (3) it is approved by the student's advisory committee.

Passing the Educational Testing Service foreign language examination with a minimum score of 465 may be used to fulfill the requirement in the common languages (Spanish, German, French, or Russian). A special examination locally administered is used for the uncommon languages, such as Arabic, Chinese, or Vietnamese.

Alternatively, the language requirement may be satisfied through the successful completion of 288a and b in the Department of Foreign Languages and Literatures with a minimum grade of *B* in 288b. Where the Department of Foreign Languages and Literatures recommends that the student start with 288b, the completion of the recommended course with a grade of *B* in 288b will satisfy the requirement. Students whose native language is not English may offer English to satisfy one tool requirement.

The student may choose one of three options for demonstrating proficiency in computer science.

1. Computer Science 202 and either Computer Science 302, 311f, 311i, 311p, 370, or an appropriate 400 level course, e.g. 403, 411, 430, or 470, with a grade of *C* or better required in the second course to fulfill the requirement.
2. Computer Science 202 and Political Science 503 with a grade of *C* or better required in each course to fulfill the requirement.
3. Computer Science 202 and the successful completion of a programming problem assigned by the Department of Political Science faculty.

Research tool courses taken at other institutions may be submitted to the director of graduate studies for consideration as courses equivalent to those specified above.

This department is amenable to self-tailored programs subject to the expertise of the faculty and the approval of the graduate studies committee. Such approved programs may suggest the need for tools in addition to or in place of those tools specified in this section.

Dissertation. A dissertation must be written under the direction of and with the approval of a five member committee, one of whom must be from outside the Department of Political Science. The members of the committee need not be the same as the members of the preliminary advisory committee. A dissertation prospectus must be approved by the members of the dissertation committee and filed with the director of graduate studies. The student must register for a minimum of 24 hours of dissertation credit, and cannot register for dissertation credit until he or she has been admitted to candidacy or, with the approval of the advisory committee and the director of graduate studies, for the term during which preliminary examinations are scheduled.

An acceptable dissertation must be completed within 5 years after admission to candidacy, or the student will have to repeat preliminary examinations. Final copies of the dissertation should be submitted to the members of the dissertation committee no later than 10 days before the scheduled oral examination. The successful passing of a final oral examination devoted primarily to a defense of the dissertation and open to the public will complete the requirements for the Doctor of Philosophy degree. A final copy of the dissertation must be filed with the director of graduate studies.

Application of Rules and Exceptions. The department's rules in force at the time of the student's admission to the Ph.D. program will apply while the student is in the program unless (1) the student voluntarily selects a newer set of rules in total before graduation or (2) the time between admission to the Ph.D. program and passing the preliminary examinations exceeds 5 years. In the latter case, the student will automatically come under the rules in force at the beginning of the sixth year and every fifth year thereafter until the preliminary examinations are passed.

Requests for exceptions to any of the above requirements must be presented in a petition approved and signed by the members of the student's committee, submitted to the director of graduate studies and approved at a scheduled meeting of the graduate studies committee.

Psychology

The Department of Psychology offers graduate work leading to the Master of Arts, Master of Science and Doctor of Philosophy degrees in psychology with concentrations in the following areas: experimental, clinical, bio-clinical, and counseling psychology. The primary emphasis is on doctoral training, for which the master's degree is a prerequisite.

The goal of graduate study in the Department of Psychology at Southern Illinois University at Carbondale is to develop psychologists who will have a broad perspective and scientific sophistication as well as the requisite skills to advance the field of psychology and meet changing needs. The program emphasizes formal course work in the core curriculum and concentrations, and preprofessional activities in training assignments and in research and practicum opportunities.

Admission and Advisement

Separate application forms must be submitted to the Department of Psychology and to the Graduate School. Graduate School application forms may be obtained from the Graduate School office, and departmental application forms may be obtained from the Department of Psychology. Separate forms are not required for application for financial assistance, except for Graduate School fellowships and special doctoral assistantships. Students will be accepted for graduate work in

psychology only upon approval by the departmental admissions committee as well as the Graduate School. Evaluations of applicants by the departmental admissions committee are based on information from the application form, GRE scores, transcripts, and letters of recommendation.

Upon admission to the department, each student is assigned to a faculty adviser, who assists in academic matters, including the planning of the entire program of study: required courses, planned electives, anticipated dates for fulfillment of specified requirements, etc. Upon formation of the thesis or dissertation committee, the chairman of that committee automatically becomes the student's academic adviser.

Core Curriculum

During the first year all students are required to take a two-course sequence in quantitative methods and research design (522a and b, or the equivalent). All students enrolled in the master's program should have completed the thesis requirement (599, 4-6 hours) by the end of the second year. Six additional elective courses in areas other than the major are required in order to provide breadth as well as some degree of depth in the total field of psychology. In consultation with the adviser, the student selects electives. Those in the experimental, bio-clinical and counseling programs select from any four of the following specialty areas, subject to the approval of the faculty teaching in those areas: cognitive, developmental, learning, personality, physiological, quantitative, sensation-perception, social, or any other area in the department or an approved area outside the department. Students in the clinical program, select from the above areas, with the stipulation that one of the electives must be from developmental or social and one must be from learning or physiological. The student should take these electives early in tenure to facilitate the integration of major and minor areas. All core requirements should be completed by the end of the seventh academic term of residence.

Areas of Concentration

EXPERIMENTAL PSYCHOLOGY

The concentration in experimental psychology offers a broad academic course of advanced study, primarily for students working toward careers in teaching and research. While the student may select courses from several areas, the student is expected to specialize in at least one area of experimental psychology: cognitive, developmental, learning, personality, physiological, quantitative, sensation-perception, social. The following courses are required: 409 (or its equivalent), 522c, a seminar in procedures and problems in clinical psychology, and a course in computer programming. The student is also required to take research credit during all but the first two semesters of residence.

CLINICAL PSYCHOLOGY

The clinical psychology program, approved by the Education and Training Board of the American Psychological Association, is designed to develop clinical psychologists for careers in clinical service, teaching, and research. All clinical students take the core of courses and receive early and continued practicum training in both clinical activities and research. Individual interests are accommodated through electives and training assignments and through specialty programs. The following courses are required of all clinical students: 523, 530a and b, 531, 535, 540, 594E, 598.

In addition to the clinical core students take a minimum of six additional courses in their specialty: (1) General clinical students are required to take an assessment practicum and an additional semester of therapy practicum plus 4 electives; (2) the experimental clinical students are expected in their six additional courses to take those which have a research orientation, e.g., 532, 533, 539, etc.; (3) students in the

child clinical specialty are required to take 432 and 556 plus 4 electives. In addition it is expected that they will take 552 and 554 as a part of departmental electives.

BIO-CLINICAL PSYCHOLOGY

The program is bio-medically oriented and is designed to place psychological research and clinical practice within the broad framework of the biological sciences. In order to train mental health scientist-practitioners for careers in medical, health-related and academic settings, a dual-track program is pursued in clinical psychology, and in either physiological psychology or learning processes.

The following courses are required: 415; two of the following — 509, 510, or 511; 514; 522c; 530a and b; 531; 535; 540; 598; 594e; 534 (behavior, therapy seminar); 585 (bio-clinical psychology seminar — 1 credit each semester during the first three academic years), computer programming, and medical neurosciences.

COUNSELING PSYCHOLOGY

The counseling psychology program, approved by the Education and Training Board of the American Psychological Association, is designed to teach students a wide range of skills which will be most useful in a university setting, either in an academic department or a counseling center.

Students may also be prepared for positions in hospitals, community agencies, and educational and correctional institutions. The student is expected to develop competence in counseling, psychological assessment, consultation, research, and teaching. The required courses are as follows: 523, 530a and b, 538, 547, 548, 594f, and 598. In addition, the following electives are recommended: 531, 532, 539, and 585.

Research, Practicum, and Training Assignments

Research or practica are required in each area of concentration. In addition, each term the student must be engaged in a training assignment which supplements formal course work by professional activities such as research, teaching, or clinical service. The assignment varies according to the needs, professional goals, and competencies of the student, and increases in responsibility as the student progresses. The assignments require from 10 to 20 hours of service per week.

Master's Degree Requirements

The master's degree requires a minimum of 48 semester hours of acceptable graduate credit, distributed according to the requirements of the student's major area, and the completion of an approved thesis. The master's thesis may be either original research or the replication of an important study.

Doctoral Requirements

Admission: Admission to the Ph.D. program requires a master's degree, a grade point average of 3.25 or above in graduate studies, and acceptance by the department. A student who receives the master's degree from SIU at Carbondale must apply formally to the Graduate School for admission to doctoral-level study, and be approved by the department chairman.

Records of students entering the program with a master's degree from another institution are evaluated by the departmental admissions committee which notes deficiencies, recommends methods for removing them, and specifies a time limit to do so. Such deficiencies must be removed before the student can be classified as a Ph.D. candidate. The student is recommended to the graduate dean for admission to Ph.D. candidacy only when the statistics sequence, core requirements, and all of the preliminary examinations have been completed.

Internship. Doctoral students who are majoring in clinical, bio-clinical or counseling psychology must complete an approved internship: 48 weeks for clinical and

bio-clinical students, and the equivalent of nine months for counseling students. The placement of the internship varies from program to program; clinical students may take their internship at any time after the completion of the M.A. In order to intern in the third year, a master's thesis prospectus must be approved by the end of the fall semester of the second year. They will not be approved for internship unless this stipulation is met. Alternatively, they may opt to complete all academic requirements before internship. Counseling students are approved for internship after completion of three years of academic work, unless they have opted for a concurrent internship. In the latter case, the student carries a half-time internship for two years concurrent with school attendance. The bio-clinical students must complete all academic work prior to internship. Since the internship is viewed as an integral part of training, the Ph.D. degree is not awarded until the completion of all academic work and the internship.

Students are responsible, in consultation with their advisers, for scheduling and obtaining internships. It is expected that the internships will be with an APA approved internship agency, unless an exception has been approved.

Preliminary Examinations. Ph.D. candidacy is contingent on successful completion of written examinations in both the minor and major areas. Both examinations are composed primarily of essay questions that require substantive knowledge of experimental and theoretical topics. Questions are not limited to course content. The examinations are designed to ensure the breadth and depth in the student's training, encourage the student to organize and integrate knowledge, and inform the faculty as to the student's competence. The examinations are four hours in length for the minor and six hours in length for the major.

Every student is expected to pass each examination the first time it is taken. In any event, the student will not be permitted to take either the minor or the major exam more than twice.

Minors. The examining committee shall consist of at least two faculty members, one of whom will be designated as chairperson. After preliminary discussion of a topic area with the proposed committee chairperson and potential committee members, the student must meet with the major area director and present for final approval a request for the topic area and the examining committee (including additional examiners, if appropriate, and alternate readers).

The student must meet with the committee at least ten weeks prior to the examination in order to agree upon topics to be covered by the examination and to decide what additional preparation is necessary to assure adequately prepared action. Any changes in topic area or composition of the committee must be approved by the major area director. Should the student fail an examination there is the option of forming a different committee to administer the second examination subject to all the rules stated above.

Major. Fields of concentration for the preliminary examination in the major are listed below:

1. Experimental. Any one field from the following may be selected for the major examination: cognitive, developmental, learning, personality, physiological, quantitative, sensation-perception, social.
2. Clinical. The major examination includes the following: psychological assessment, psychotherapy, psychopathology, and personality. In addition, the examination reflects the specialization emphasis for each student.
3. Bio-clinical. The student takes two major level examinations: one in clinical psychology, and the other in learning processes or physiological psychology. Both examinations consist of material inherent to each area and of material especially relevant to bio-clinical psychology.

4. Counseling. The major examination includes two fields: (a) counseling, and (b) psychological evaluation.

The major examinations are scheduled by the department once a term, ordinarily within the first two weeks. Notices are posted well in advance and students are expected to notify the graduate secretary of intention to take the examination. Examination committees are appointed by the chairman.

Dissertation. Each candidate for the Ph.D. degree must write a dissertation showing high attainment in independent, original scholarship and creative effort. A total of 24 credit hours is required. A maximum of 8 hours of dissertation credit may be taken subsequent to passing the minor preliminary examination and prior to passing the major preliminary examination. A student may not hold a prospectus meeting before successful completion of both minor and major examinations.

Thesis and Dissertation Committee

Because the thesis or dissertation project and the proposed committee composition must be formally approved by the department chairman, the student should arrange a meeting with him well in advance of the prospectus meeting.

A master's thesis committee consists of three members including the chairperson of the committee and a psychology faculty member who is typically from some field other than the student's major area of interest. The Ph.D. dissertation committee consists of five members, one of whom serves as chairperson. One of the members must be from a department other than psychology.

Prospectus. Prior to starting the experimental research on a thesis or dissertation, a student must submit a written prospectus to each member of the committee. A carefully written prospectus ordinarily serves as the opening chapters of the thesis or dissertation. The student also prepares an abstract (normally no more than two pages) for distribution to psychology faculty one week before the prospectus meeting.

The approval of the prospectus indicates that the committee members accept the research design. Faculty members not on the committee may attend the prospectus meeting, or may forward suggestions and comments to the committee chairperson prior to the meeting. Prospectus meetings are not scheduled during the recess period between semesters.

If the prospectus is approved with no major modifications, one copy of the prospectus and a letter of approval, noting any minor modifications are sent by the committee chairperson to the department chairman for filing in the student's permanent records. If major modifications are needed, the student may be asked to rewrite the prospectus, circulate the revised prospectus, arrange another committee meeting, and then file the revised prospectus as above. A prospectus must be approved at least one semester before graduation.

Style. The student has the option of writing the thesis or dissertation in the traditional fashion or in journal style. In the latter case, ancillary material (full survey of literature, subsidiary analyses, etc.) are placed in the appendices, although figures and tables appear in the text. The psychology department prefers that citations, table headings, etc. follow the APA style (Publication Manual of the American Psychological Association, 1974 revision, Washington, D.C.).

General Procedures. Students should not register for 599 or 600 hours until they have supervisors and will actually be using university facilities, or faculty time for assistance and direction.

Prior to graduation (a minimum of five weeks for master's students and eight weeks for doctoral students) the candidate must submit a final rough draft of the

thesis or dissertation to the full committee so that appropriate suggestions can be made. At least one week usually expires between the submission of the rough draft and the oral examination.

Number of Copies. Four copies of the complete thesis or dissertation are required: two copies are submitted to the Graduate School for placement in the University library, and two bound copies—one for the committee chairperson, and one for the departmental thesis and dissertation library.

Oral Examination

The Department of Psychology requires an oral examination, conducted by the student's thesis or dissertation committee, for each M.A. and Ph.D. candidate. The examination covers the thesis or dissertation and also includes questions designed to ascertain the student's general competence in psychology.

Oral examinations are open to all interested observers. Notices of the time and place of the examination, and abstracts of the thesis or dissertation, are circulated throughout the department and, in the case of Ph.D. examinations, throughout the university. Two copies of the abstract should be given to the graduate program secretary.

The candidate obtains copies of the oral examination form and the thesis or dissertation evaluation form from the graduate program secretary, and delivers them to the committee members on the day of the orals. Orals meetings are not scheduled during the recess period between semesters.

General Information

Waiving of Course Requirements. The student who wishes to have a course waived should consult with the adviser. If the adviser agrees, the student submits a written petition to the major area committee, which decides how proficiency in the course will be determined.

Grading Policies. Any student who receives a grade of *Inc.* is responsible for contacting the instructor to determine the time allowed for the completion of the course (normally not more than one year).

For internal records to be used within the department only, plusses and minuses are added to the standard *A, B, C* grades reported to the registrar.

Student Evaluation. All students are evaluated by the faculty at least once a year, at the end of spring semester. In addition, new students are evaluated in the beginning of the spring semester (first year), and students on probation at times specified in their probation. The evaluation is based on the following criteria: (1) academic performance on a ten point rating scale ($A + = 10$); (2) ratings on the training assignment, and (3) progress toward the degree. The student's evaluation may also be based upon evidence concerning professional attitudes or ethical behavior.

Each student's adviser informs the student of the evaluation and of any faculty recommendations as soon as possible after the meeting. In addition, the department chairman writes a formal letter notifying the student of the evaluation and recommendations.

Public Affairs

(see Political Science for program description)

Public Visual Communications

The Master of Arts degree in public visual communications is sponsored jointly by the Departments of Cinema and Photography and Radio-Television and is intended to provide substantial advanced training in the theory, history, and practice of public communications. Emphasis in the program is upon the social influences and applications of the electronic and photographic media.

Within the general program students can elect to concentrate either in cinema, television, or still photography or any combination of cinema, television, or still photography in an interdisciplinary configuration.

In the cinema concentration students may specialize in film history, in film theory, or in motion picture production. In the television concentration work will ordinarily be limited to the theory and practice of public telecommunications in the areas of content development, audience analysis, media characteristics, management and administration, and social effects. In the still photography concentration students may specialize in history of photography, publications photography, scientific photography, or creative photography.

Acceptance in the program, and subsequent continuation in it, are at the discretion of the Graduate School and the program in public visual communications. Minimal admission requirements are those of the Graduate School. Prior to admission into the program, applicants will be expected to present evidence of their creative work, scholarship, and specifically, a minimum of 9 semester hours of courses in the social sciences to a program acceptance committee. In addition students will be expected to have a minimum of 18 semester hours in photography, film studies, or radio-television courses. Students who seek admission without undergraduate preparation in any of the above will be required to make up deficiencies before receiving graduate credit for work in this program. Courses taken to satisfy such undergraduate deficiencies will not apply toward the graduate degree.

Course hour requirements for the program are 30 semester hours. Of these, 6 hours must be in a department other than cinema and photography or radio-television, and 15 hours must be at the 500 level. All students in the program will be required to successfully complete the common core courses PVC 500, introduction to public visual communications; and, as capstone, PVC 589, seminar in public communications in a dynamic society. All television concentration students will be required to select two from among the following PVC Courses: 510, 530, 532, 570, 571, or 580. A 3.0 grade point (on a 4.0 scale) must be maintained for retention in the Program. It is expected that students will be in full-time residence for a minimum of one calendar year. If additional prerequisites are necessary, or if extensive creative work is involved, the program may require a longer period for completion.

A maximum of 12 hours of transfer credit may be petitioned into the student's program. An out-of-program course, designed to aid the student in the methodology and skills of research, may be required as agreed upon by the student's advisory committee. This course, however, will not qualify as meeting the program's minor requirements.

As soon as possible after admission to the degree program, and not later than the end of the first term in residence, the student will select a major adviser and a committee of two additional graduate faculty members. This committee will develop with the student a specific plan of study according to the requirements of the Graduate School, the program, and the goals of the student. The major adviser will

direct the thesis. Students will be reviewed by the graduate faculty for continuation in the program at the end of their first 12 hours of class work.

In all instances students will be held responsible for a comprehensive written examination over the entire work taken for the degree. An oral examination by the faculty advisory committee will normally constitute part of the graduation requirements.

Graduation requirements may, in part, be satisfied by a traditional written thesis or a final creative project. If the non-thesis option is chosen, the student must take the full 30 hours of coursework including 3-6 hours of PVC 597 resulting in a creative work presented to a public. A related essay or research paper will be submitted to the Graduate School as evidence of ability to undertake formal research. The University reserves the right to retain a sample of each student's work.

Recreation

The Department of Recreation offers a broad interdisciplinary program of studies preparing students for administrative careers in leisure education and recreation management. The program leads to the Master of Science in Education degree in recreation.

Graduate work in recreation stresses research and administration and is open only to highly qualified students. All students must be admitted to the Graduate School in good standing.

A minimum 30 semester hours of credit, no more than 3 of which may be for the thesis, constitute the basic course requirements for the M.S. in Ed. degree. At least 24 of these hours must be at the 500 level.

A student must maintain an overall 3.0 (4-point scale) grade point average in order to be eligible for the Master of Science in Education degree.

An advisory committee is chosen for each student. All elements of the student's program must receive the approval of this committee. A thesis or research paper is required for the Master of Science in Education degree, the topic of which is chosen in consultation with the adviser at the earliest practical time.

The final oral examination will cover the thesis or research paper and the major area in which it was written, and it may also test the candidate's general competence in the field of recreation.

A student admitted to the master's program in recreation will work closely with the adviser in designing a program to fit the needs for professional preparation in a chosen concentration.

The areas of concentration in recreation are: (1) park and community recreation, (2) recreation for special populations, (3) outdoor recreation, and (4) commercial recreation. Students are expected to complete (1) the core professional courses: Recreation 500, 520, 530, 550, and 570; (2) fifteen hours of electives in an area of concentration; (3) Recreation 599-3, a thesis in recreation, or Recreation 575-3 to 6, independent study conducted in a recreation setting. Students choosing the 575 option are required to write a research paper.

Rehabilitation Institute

In response to pressing human and social needs, the applied field of rehabilitation has solidly entrenched itself as a professional discipline over the past twenty years. Multidisciplinary courses of study have been drawn together from the behavioral, social, and medical sciences appropriate to the development of competent prac-

titioners, supervisors, and programmers in rehabilitation and welfare agencies. The overall program is left purposely broad and flexible to permit the inclusion of training innovations and emerging career patterns.

The Rehabilitation Institute offers graduate programs leading to a Master of Arts or a Master of Science degree in behavior modification, rehabilitation administration and services, and rehabilitation counseling. While rehabilitation administration and services requires a minimum of 30 semester hours of course work and field experience, behavior modification and rehabilitation counseling are 45 semester hour programs. The distinction between M.A. and M.S. degree is one of demonstrable research performance. Candidates for the M.S. degree concentrate primarily on preparation for entry into the helping profession, and ordinarily they complete a project or research paper in their area of specialization. The M.A. degree requires a thesis of an experimental nature, in which candidates demonstrate their skills in formulating researchable questions, in identifying and manipulating experimental variables and in the analysis and the judicious reporting of the data.

BEHAVIOR MODIFICATION

The behavior modification program is a 45 semester hour program leading to either a M.A. or M.S. degree. Substantive courses are provided in therapeutic, instructional, and rehabilitative procedures that are based on learning and reinforcement principles. A program of study tailored to the interests of the individual student allows the student to acquire specific competencies in behavior modification with such special populations/settings as mental retardation, mental disorders, child behavior and classroom problems, sexual behavior, and behavior therapy.

A minimum of 30 hours of course work are required in addition to an internship and thesis or research paper. Of this 30 hours at least 18 hours must be selected from the didactic courses taught by behavior modification faculty. These courses normally include, but need not be limited to: Rehabilitation 409, 503, 508, 543, 545, 553, 554, 555, 564, 568, 577 and 584. The remaining hours may be taken in additional courses, practicum or independent study. Practical experience (Rehab. 594B) in a variety of field settings is a major part of the program.

A 12 week full-time internship at an affiliated training center under the supervision of a member of the behavior modification faculty is required. A student usually receives 9 hours of credit in Rehab. 595 for this experience. The student typically receives 6 hours credit for satisfactory completion of the M.S. research paper (Rehab. 593) or the M.A. thesis (Rehab. 599). Comprehensive examinations are satisfied through oral examination by the student's research or thesis advisory committee.

REHABILITATION ADMINISTRATION AND SERVICES

The rehabilitation administration and services program is designed to train students to serve as administrators, coordinators, vocational evaluators, adjustment specialists, placement specialists, and programmers in a wide variety of rehabilitation settings. Its major goal is to develop graduates who are practical, competent rehabilitation professionals through its applied and action-oriented curriculum.

All students must complete a minimum of 30 semester hours of graduate course work and field experience in addition to completing a full-time internship and a research paper or project. During the first semester of full-time study or a comparable time period for part-time students, the student must file and have approved a plan of study through an adviser with the concurrence of the degree program coordinator. This plan of study must include core requirements, professional course sequences, and electives. Specific requirements are as follows:

CORE REQUIREMENTS: REQUIRED OF ALL STUDENTS

Rehb 400	3	Introduction to Rehabilitation
Rehb 513	3	Medical and Psychosocial Aspects of Disability
Rehb 593	3-6	Research in Rehabilitation
Rehb 594	3-6	Practicum in Rehabilitation
*Rehb 595	1-12	Internship in Rehabilitation
Student Choice	2-4	One course dealing with either the specialized setting or population with which the student plans to work.
A Research Paper or Project		

*Credit earned in Rehb 595 does not count as a part of the 30-semester hour minimum (A full-time internship consists of a minimum of 480 consecutive clock hours. However, the minimum clock hours for 12 semester credit hours is 540.)

Professional Course Sequences. The student must complete a series of courses approved by the student's faculty adviser and degree program coordinator. This series of courses must contain a minimum of four courses from one of the professional course sequences below.

SAMPLE PROFESSIONAL COURSE SEQUENCES*Rehabilitation Administration Sequence*

Rehb 570	3	Rehabilitation Administration
Rehb 573	2-3	Programming, Budgeting, and Community Resources
Rehb 576	2-3	Development and Supervision of Rehabilitation Employees
Rehb 579	3	Advanced Fiscal Management in Rehabilitation
Rehb 479	2	Technical Writing in Rehabilitation
Rehb 582	1-4	Seminar in Rehabilitation Services

Vocational Evaluation Sequence

Rehb 436	3-4	Vocational Evaluation and Adjustment Services
Rehb 431	3	Assessment Procedures in Rehabilitation
Rehb 531	3	Individual Assessment Procedures in Rehabilitation
Rehb 533	2	Vocational Appraisal
Rehb 421	3	Vocational Development and Placement
Rehb 479	2	Technical Writing in Rehabilitation
Rehb 501	2	Rehabilitation Foundations

Adjustment Services Sequence

Rehb 436	3-4	Vocational Evaluation and Adjustment Services
Rehb 406	3	Introduction to Behavior Modification
Rehb 553	3	Learning Therapies for Special Populations
Rehb 421	3	Vocational Development and Placement
Rehb 523	3	Job Restructuring for the Handicapped
Rehb 451	4	General Rehabilitation Counseling
Rehb 501	2	Rehabilitation Foundations

Electives. The student is expected to complete his/her plan of study with other courses which are relevant to the declared professional course sequence.

Practicum and Internship Requirements. Although students are usually required to complete at least 3 to 6 semester credit hours of practicum as well as a full-time internship, prior and concurrent work experience may be substituted for these requirements if recommended by the student's adviser and approved by the Rehabilitation Administration and Services faculty. The options available to the

student wishing to substitute work experience for either practicum or internship requirements are as follows:

Option One. The student may request a waiver of the internship requirement and in turn, substitute 3 semester credit hours of practicum and one additional three semester-hour graduate course or substitute 6 semester credit hours of practicum. These hours are in addition to the required minimum of 30 semester hours of graduate course work.

Option Two. The student may request waivers of both the practicum and internship requirements and in turn, ask that 6 to 12 semester hours of credit be granted for prior or concurrent work experience (REHB 494, Work Experience in Rehabilitation). Students granted this request will still be expected to complete at least 30 semester hours of graduate course work.

Waiver requests must be submitted by the student through the faculty adviser to the coordinator of the rehabilitation administration and services program and must be approved by a vote of the rehabilitation administration and services faculty. Waiver requests must include written documentation of the reasons for the request and provide sufficient supporting evidence. Suggested guidelines for the appropriateness of each of the options are: 1) option one for the student with three or more years of satisfactory rehabilitation-related work experience and 2) option two for the student with three or more years of satisfactory work experience directly related to the student's chosen professional course sequence. The student with minimal or no rehabilitation-related work experience will be expected to complete the required 3 to 6 semester hours of practicum and a full-time internship.

Research Paper/Project or Thesis and Comprehensive Examination Requirements. The student seeking the M.S. degree is required to complete a scholarly research paper or project in a rehabilitation-related area and an oral or written comprehensive examination. The student seeking the M.A. degree is required to complete a graduate thesis in a rehabilitation-related area and defend it before a thesis committee, an oral or written comprehensive examination, and in addition, an approved course in research statistics or research design.

REHABILITATION COUNSELING

This one and one-half calendar year program (45 credit hours) usually requires two semesters and a summer in addition to an internship to complete an M.A. or M.S. degree. The professional rehabilitation counselor must demonstrate competence in establishing a counseling relationship, guidance and vocational planning, assessment procedures, and job placement as well as have an awareness of professional and community resources. Students focus on a broad range of skills and resources necessary to facilitate the development of handicapped persons to maximum use of their abilities.

Required Courses

Rehab. 400, 501, 513, 421, 431, 451, 594, and 595. The student is given field work assignments on a weekly basis and must complete at least a three-month internship in a rehabilitation setting. Completion of a terminal project, research paper or experimental research project is required depending on the degree selected by the student.

There is sufficient flexibility in the curriculum so that special interests can be pursued by the student. By way of field training assignments, selected seminars and courses, the student gives special emphasis to certain client groups. Concen-

trations offered are in aging, corrections, mental retardation, mental health, and economic deprivation.

A comprehensive examination is required when the student has completed about two-thirds of his program.

Secondary Education

(See curriculum, Instruction and Media for program description)

Sociology

The Department of Sociology offers programs of graduate study leading to the Master of Arts and the Doctor of Philosophy degrees in sociology. The department ordinarily requires a grade point average of at least 3.0 for admission to the master's program and a minimum graduate grade point average of 3.5 for admission to the Doctor of Philosophy degree program. Graduate Record Examination scores on both the aptitude and the advanced (sociology) sections must be submitted with the application for admission.

Master of Arts Degree

A minimum of 30 semester hours is required for the master's degree, and the total number of hours may be taken entirely in sociology. Courses in other fields which are related to a student's program of study may, with approval of the adviser, count toward the total minimum hours.

There are no specific course requirements, but the student must pass a comprehensive written examination covering major areas of the discipline. Two of these areas, theory and methodology, are required by all students. The student must elect three additional areas from the following: social psychology; social organization; social and cultural change; the family; social disorganization, deviance and control; demography and ecology.

If the student fails to pass the examination or any part, the student may request re-examination appropriate to the case. Re-examination will be made at a time designated by the departmental graduate examination committee, usually no sooner than the next regularly scheduled examination period. The committee may elect to deny a request for re-examination after the student has failed twice.

A thesis or research paper is required for the degree. Up to 4 hours of individual research credit may be earned for the research paper and from 3 to 6 hours credit for thesis. The sociology master's programs should take about 4 terms of normal study to complete. Students on departmental stipends cannot expect continuance of such support beyond the second year of study at the master's level.

Students who have completed all requirements for the master's degree except the thesis or research paper may petition the academic affairs committee to be permitted to by-pass the master's degree and be admitted to the Ph.D. program. The committee will ask the Graduate School to certify that the student's previous work is equivalent to a master's degree.

This request must be followed by a formal application to the Graduate School for admission. The petition will be given consideration only under the following conditions:

1. The student has passed all sections of the comprehensive examination on the first trial and received grades of outstanding in a majority of the sections of the examination.
2. The student has achieved a grade-point average of at least 3.5 for all graduate courses taken in sociology prior to petition.

3. The student has completed all key sociology courses in required and elective areas of his program and has not acquired an excessive number of incomplete or deferred grades in other courses.

Doctor of Philosophy Degree

Advisement. The responsibility for initial advisement rests with the departmental director of graduate studies. As soon as a tentative general plan of study has been worked out, the director of graduate studies shall, in consultation with the student, request an appropriate member of the graduate faculty of the department to serve as the student's personal adviser.

As soon as possible, the student shall, in consultation with an adviser, prepare a plan of study designating the primary and secondary areas of examination (see below). At this point, the student expresses a preference for a program committee of three or four members representing the chosen areas of examination. The committee is, with the consent of its members, formally appointed by the director of graduate studies and entered in the student's records along with his declared primary and secondary areas of examination.

Diagnostic Examination. A diagnostic examination for Ph.D. students shall be given in the Fall and Spring semesters. Students are required to take the examination the first time it is offered following their entrance into the program. This examination serves diagnostic purposes only and is intended to reveal special interests and abilities, as well as deficiencies, which need to be considered by the student and the adviser in planning a program of study. For students who have master's work in sociology at Southern Illinois University at Carbondale the M.A. comprehensive examination previously taken will serve as the diagnostic examination.

Areas of Examination. All students must declare two primary areas of examination, one of which must be sociological theory-methodology, and two secondary areas of examination. For students with a special interest in theory, the department offers a maximum examination area in sociological theory-methodology, corresponding to a combination of a primary and a secondary area.

At present, the department regularly offers the following primary and secondary areas of examination: theory-methodology, deviance and social control, quantitative methods, social change, social psychology, sociology of religion, sociology of science, sociology of the family.

Social organization (focusing on the city, community, complex organization or stratification) is also regularly open as an area of examination, but prior approval of a special study plan is required.

Other areas of examination may be offered in particular cases as student needs arise and faculty resources permit. Approval of a special area of examination must be obtained from the academic affairs committee at least one semester before the intended date of examination.

One secondary area may be chosen in any department other than sociology which offers a Ph.D. program. The student shall in this case meet the requirements for a Ph.D. secondary field in the department concerned. Relevance of the outside area to the student's total program must be demonstrated, and approval must be obtained from the academic affairs committee.

Course Work and Reading. Lectures and seminars are offered in the various fields according to the resources of the department. Guided reading and research courses are also offered according to the availability of faculty members.

In addition to the formal course work, the students are expected to qualify themselves by independent reading in primary and secondary areas of examina-

tion. Students shall, with the assistance of the program committee, develop their own list of readings covering chosen areas of examination. As a general rule, the personal reading list shall include the most important works in each of the chosen areas. The final reading list must be approved by the program committee.

Comprehensive Examination. To qualify for the status of candidate for the Ph.D. degree, the student must pass a written comprehensive examination, which will be prepared by a special examination committee, consisting of the student's program committee supplemented as need may arise by other members of the graduate faculty in order to provide at least two readers in each of the student's areas of examination. The supplementary members of the examination committee, are, upon the recommendation of the student's program committee, appointed by the chairman of the department graduate examination committee.

Normally, the comprehensive examination consists of six hours examination in each of the two primary areas of examination and three hours in each of the two secondary areas. In the case of a maximum examination in theory-methodology, there will normally be a three-hour general examination and a six-hour examination in the student's chosen area of theoretical emphasis as it appears in the reading list.

The examination may, at the request of the student, be taken in two parts, each consisting of a primary and secondary area of examination. The second part of the examination must be taken during the following regular semester. Failure to do so negates all examinations previously passed.

A student who fails to pass the examination in any declared areas must be re-examined in those areas. This re-examination must be taken during the following semester. After failing twice, the student may be denied further examination by the chairman of the department.

On successful completion of the comprehensive examination, and upon the recommendation of the director of graduate studies to the dean of the Graduate School, the student attains the status of candidate for the Ph.D. degree.

Dissertation. The responsibility for advisement of the candidate in relation to the dissertation is borne by the dissertation director, who is selected by the student in consultation with the department chairman and approved by the dean of the Graduate School. The candidate, in consultation with the dissertation director, shall prepare a prospectus, showing the purpose and scope of the proposed research, its relation to previous work in the field, its theoretical relevance and significance, and the methods and techniques to be used. When the candidate is ready to present a prospectus, the dean of the Graduate School shall, on the recommendation of the department chairman, approve a dissertation committee with the student's dissertation director serving as chairman. According to the present Graduate School requirements, the dissertation committee with the student's dissertation director serving as chairman. According to the present Graduate School requirements, the dissertation committee shall consist of five members, one of whom shall be from outside the department.

The completed dissertation must be accepted by the dissertation director before being circulated among the dissertation committee members for final evaluation. A final draft must be submitted to the committee members at least two months before the date of graduation.

Oral Examination. After acceptance of the dissertation by the candidate's dissertation committee, an oral examination will be scheduled and conducted by the committee in open meeting. The examination shall be based primarily on the contents and implications of the dissertation.

Sociology as a Secondary Specialization. A student enrolled in another graduate

program who wishes to declare sociology as a secondary area must submit a written request to the chairman of the departmental academic affairs committee outlining the following:

A tentative plan of course work, a tentative personal reading list, and a tentative overall program indicating the relationship of his program in sociology to the total program.

The student will be expected to stand comprehensive examination in the area.

Applicants for admission to graduate study in sociology should apply in writing to the chairman of the department. Additional information on programs may be obtained from the departmental director of graduate studies.

Interdisciplinary Program. Students who have been admitted to the doctoral program in sociology and who wish to develop an interdisciplinary program, should review the guidelines set forth on page 20 of this catalog. The graduate dean approves interdisciplinary Ph.D. programs only when they bear the endorsement of the principal sponsoring department. A student who wishes to apply for an interdisciplinary program in which sociology will be the principal sponsoring department should understand that the program of study must include substantial involvement with courses in sociology and that the department may require the student to meet other requirements similar to those established for the doctoral program of sociology.

Special Education

The department offers programs leading to the Master of Science in Education degree in special education and to a concentration in special education for the Doctor of Philosophy degree in education.

Master of Science in Education degree

In the master's degree program, which requires a minimum of 30 semester hours for completion, four options are offered. All are designed primarily for those who are already certified to teach, and who have attained an undergraduate grade point average of at least 2.7 on a 4 point scale. Some of the options require prior certification in one area of special education as well. Students desiring entry into the program but lacking appropriate certification may complete the necessary requirements as a part of a longer master's program planned for them by their graduate adviser. Applicants with grade point averages less than 2.7 may at the discretion of the departmental faculty be admitted conditionally. They may also be required to complete all or a part of the Graduate Records Examination and to submit the results as a part of their application to the department.

There are four options open to those seeking a master's degree in special education: (1) resource teacher of the mildly handicapped, (2) teacher in self-contained classes for the severely handicapped, (3) coordinator of classes for the pre-school handicapped, and (4) teacher of the gifted. Program requirements for each of these options include the following courses: Sp Ed 580-3, 517-2, 500-3 and 502-2. In addition, they require completion of the courses listed below with the explanation of each of the options.

Resource teacher of the mildly handicapped. Students choosing this option will ordinarily enter the program with certification in at least one area of special education, and during the program will add another area of special education certification. Their training will prepare them to work as resource personnel in school programs where mildly handicapped children have been returned to regular classes, or to teach in self-contained classes for mildly handicapped in their areas of certification. In addition to the core courses, they must complete: Sp Ed 594-2; one

of Sp Ed 401-3, 402-3, or 404-3; 511-3; at least one of 513-3, 515-2, or 514-3; and additional electives selected in cooperation with their graduate adviser, to a total of at least 30 semester hours.

Teacher in self-contained classes for the severely handicapped. Students choosing this option will ordinarily have been certified previously in the same area, and during the master's program may or may not add another area of certification. After completion of the program they will be prepared to work as teachers in self-contained classes for severely handicapped, to work as coordinators of classes for these children, or to coordinate the development of suitable programs for them across a long span of their school experience. In addition to the core courses, they must complete: Sp Ed 594-2; 421-3; at least one of 513-3, 515-2, or 514-3; and additional electives selected in cooperation with their graduate adviser, to a total of at least 30 semester hours.

Coordinator of classes for the pre-school handicapped. Those selecting this option will, as a rule, have completed certification requirements in at least one other area of special education, and during the program will complete requirements for certification in the pre-school handicapped area. Upon completion of the program they will be prepared to work either as classroom teachers or as program coordinators in this area. In addition to the core courses, they must complete: Sp Ed 594-2; 505-3; 511-3; and additional electives selected in cooperation with the graduate adviser to a total of at least 30 semester hours.

Teacher of the gifted. Those selecting this option will usually have completed certification requirements as an elementary or secondary teacher although not necessarily as a special education teacher. At the completion of the program, they will be prepared to work as itinerant or resource teachers for gifted children in elementary or secondary grades. In addition to the core courses, they must complete Sp Ed 594-2; and additional electives selected in cooperation with the graduate adviser to a total of at least 30 semester hours.

Research requirements for the master's program are as follows:

1. The student must successfully complete Sp Ed 500-3, and then Sp Ed 502-2 during which the research paper is completed.
2. The student must successfully defend the research paper in an oral examination conducted by the student's committee chairman and two additional committee members.

A comprehensive examination over the field of special education is also required, and is conducted by the student's committee chairman and two additional committee members.

All full-time graduate students in the department may be required to work a maximum of 5 hours per week in departmental activities as a part of their professional development.

Ph.D. Program

A Doctor of Philosophy degree in education with a concentration in special education is offered. This program is based in the policies of the Graduate School and the College of Education. It is described fully in another section of this catalog under education.

Speech Communication

The Department of Speech Communication offers three graduate programs of instruction and research in the discipline of human communication leading respectively to the Master of Arts, Master of Science, and Doctor of Philosophy degrees.

Curriculum. The graduate faculty of the department offers a core of courses in communication theory and methodology as well as course work in the following areas of human communication: communication education, creative dramatics, interpersonal and small group communication, language behavior, oral interpretation, organizational communication and public relations, phenomenology and philosophy of communication, political communication, rhetoric and public address, semiology, and (at the doctoral level) theater. Students from the Department of Theater must take at least 12 semester credit hours of course work in the Department of Speech (see the doctoral program description in theater).

Admissions. Applicants must meet the minimum requirements of the Graduate School and should have completed a minimum of 24 quarter or 16 semester credit hours in speech or related subjects. A program for remedying deficiencies in background can be arranged upon petition to the graduate committee of the Department of Speech Communication.

Application for admission to graduate studies in speech communication should be directed to the Graduate School. In addition to materials sent to the Graduate School, each applicant should submit to the Department of Speech Communication three recommendations from former instructors and an application form indicating professional and personal objectives. The official application forms for the supporting materials requested by the department may be obtained from the chairperson of the graduate committee of the Department of Speech Communication. In addition, applicants for the Ph.D. degree program may be requested to furnish a thesis or research paper as evidence of research and writing ability.

Acceptance for graduate study in Speech Communication and subsequent continuation in the graduate program is determined by the graduate committee of the Department of Speech Communication. Students who are awarded graduate assistantships to provide assistance in the instruction of the department are required to take Speech 539 if they do not have previous teaching experience at the secondary, college, or university level; the course is strongly recommended for all students planning careers in university teaching. Because of the research emphasis at the graduate level in the Department of Speech Communication, students may be required to purchase additional textbooks or materials.

Research Style. In most cases graduate students are required to write a term research paper for each course taken; and, depending on the degree program, each student is required to write a research report, thesis, or dissertation. In all cases the writing must conform to the latest edition of *The MLA Style Sheet* or *APA Style Manual*, depending on the nature of the research. In all cases the writing must conform to the current edition of the *Graduate School Guidelines for the Preparation of Research Reports, Theses, and Dissertations*.

Proficiency Examination. A student who has previously had course work that is required in the "Communication Theory and Methodology" curriculum area may petition the graduate committee of the Department of Speech Communication for a waiver of all or part of the course requirements. When a student submits such a petition, the director of graduate studies will appoint a special committee to administer a written examination and certify the results to the graduate committee of the department.

Master's Degree Programs

A minimum of 30 semester credit hours is required for the M.A. or M.S. degree. At least 15 of these hours must be at the 500 level. A student who completes only the minimum of 30 hours of work may devote no more than 9 hours to work outside the Department of Speech Communication. However, a student may petition the

graduate committee for a program to include 15 hours outside the department. Such outside work must be germane to one of the departmental curriculum areas for purposes of research and examination. Competence in one foreign language is required for the M.A. degree.

A faculty adviser is named for the individual student before the end of the first semester. The faculty adviser and the student will plan the program of study. The program must consist of course work in at least two, but not more than four, of the curriculum areas. In order to satisfy a given area of study, a student must complete at least 9 semester hours of work in that area, 3 hours of which must be at the 500 level (this requirement is waived in the case where such a 500 level course does not exist). A course used for one curriculum area may not be counted toward another area. All master's students planning to study for a Ph.D. degree should select the "Communication Theory and Methodology" as one curriculum area. For master's degree students the "Communication Theory and Methodology" curriculum core consists of the following course requirements:

1. Three credit hours of Speech 510, Seminar: Rhetoric and Communication.
2. Three credit hours selected from Speech 401, Communication Theories and Models, or, Speech 402, Empirical Research in Speech Communication.
3. Three credit hours selected from:
 - a. Speech 502, Seminar: Empirical Communications Research.
 - b. Speech 503, Seminar: Non-Quantitative Research Methods.
 - c. Speech 531, Seminar: Speech Education.
 - d. Speech 540, Seminar: Language Behavior
 - e. Speech 572, Critical Perspectives in Interpretation.
4. Two semesters of Speech 598, Proseminar in Human Communication.
As a non-credit course, a grade of Satisfactory (S) or Unsatisfactory (U) will be assigned on the basis of attendance and participation.

The requirements for the master's degree may be met by either of the following plans chosen by the student in consultation with the adviser.

Plan 1: Thesis. Each student must complete a minimum of 30 semester credit hours, with no more than 6 hours or fewer than 3 hours of thesis credit in Speech 599 counted toward the 30 hour minimum. In addition, the student must register for at least one semester hour of credit in Speech 599 during any academic term in which the services of any faculty member are utilized in the supervision of or consultation concerning the thesis. If the student's reliance upon faculty assistance justifies, the director may require an appropriately greater number of credit hours in Speech 599. The thesis is submitted to a committee of three members of the graduate faculty, at least two of whom must be from the Department of Speech Communication. The committee must approve the prospectus and will administer an oral or written examination over course work taken. Students are required to submit two copies of the thesis to the Graduate School, one copy to the Department of Speech Communication, and one copy to the thesis director.

Plan 2: Research Report. Each student must complete a minimum of 30 semester credit hours of course work. A research report is submitted as evidence of knowledge of research techniques. This paper should be based on a special project or specific courses as recommended by an advisory committee composed of the student's adviser and one other member of the graduate faculty in the Department of Speech Communication selected by the student and the adviser. This advisory committee must approve the research paper before it is submitted to the graduate committee and, then, to the Graduate School. One copy of the research report is submitted to the Graduate School, one copy to the Department of Speech Com-

munication, and one copy to the adviser. A comprehensive written examination is taken over the course work.

The subject of the thesis or research report must be in one of the curriculum areas chosen by the student. A student must have a graduate grade point average of 3.25 in order to be eligible for the master's degree. Students planning to pursue a doctoral degree upon completion of the master's degree are often advised to select Plan 1: Thesis, since some universities view Plan 2: Research Report, as a terminal degree.

Doctor of Philosophy Degree

A minimum of 42 semester credit hours of course work beyond the master's degree and 24 semester credit hours of dissertation work are required for the Ph.D. degree. A student who completes only the minimum of 42 hours of course work may devote no more than 21 hours to course work outside the department. Such outside work must be germane to one of the departmental curriculum areas for purposes of examination and dissertation research. Throughout the program of study, the student must maintain a 3.25 grade point average in all work taken. If the grade point average drops below the minimum, the student is placed on academic warning for the following two semesters.

During the last half of the second semester of course work, the student's progress shall be reviewed by the graduate committee to determine continuation, change, or termination of the program. The advisory committee for each student shall be responsible for assembling the necessary information (grades, recommendations, progress in curriculum areas, etc.) for consideration in reaching the above decision.

Advisory Committee. An advisory committee shall be established during the first semester of graduate study to plan the program of study with each student. The committee shall be composed of one faculty member from each curriculum area chosen by the student. The chairperson of the committee shall act as the primary adviser and sign the graduate course request form. This advisory committee is responsible for certifying to the graduate committee that the student has met all departmental requirements for admission to candidacy and has passed the Ph.D. preliminary examination.

Program of Study. The advisory committee and the student will plan the program of study. The program of study must consist of course work in at least two, but not more than four, of the curriculum areas. In order to satisfy a given area of study, a student must complete at least 12 semester credit hours of course work in that curriculum area, 3 hours of which must be at the 500 level (this requirement is waived in the case where such a 500 level course does not exist). A course utilized for one curriculum area may not be counted as part of another area. All students are required to select communication theory and methodology as one curriculum area. The communication theory and methodology area consists of the following requirements:

1. Three credit hours of Speech 510, Seminar: Rhetoric and Communication.
2. Three credit hours selected from Speech 401, Communication Theories and Models, or, Speech 402, Empirical Research in Speech Communication.
3. Three credit hours selected from:
 - a. Speech 502, Seminar: Empirical Communication Research.
 - b. Speech 503, Seminar: Non-Quantitative Research Methods.
 - c. Speech 531, Seminar: Speech Education.
 - d. Speech 540, Seminar: Language Behavior.
 - e. Speech 572, Critical Perspectives in Interpretation.
4. Four semesters of Speech 598, Proseminar in Human Communication. As a

non-credit course, a grade of Satisfactory (S) or Unsatisfactory (U) will be assigned on the basis of attendance and participation.

5. At least six credit hours of course work that have a direct relation to research methodology that will assist the student as preparation for writing the dissertation.

Normally this last category of course work will be taken inside the department. Such course work must be selected from the courses listed in requirement two or three above, but excluding the two courses chosen to fulfill requirements two and three. If the student wishes to obtain all or part of the six hours outside the department, in order to meet requirement five, the courses selected by the student and approved by the advisory committee and the graduate committee must be in a methodology cognate to the speech communication discipline, such as: cinematics, ethnomethodology, foreign language, historiography, literary criticism, phenomenology, and statistics.

Preliminary Examination. The student must pass a preliminary examination on each of the declared curriculum areas in the program of study. The preparation and administration of the examination are determined by the advisory committee in consultation with the student. The examination is taken near the end of the degree program. The examination will call for demonstrated theoretical competence in the particular methodology selected by the student as part of the communication theory and methodology area. In the case of a foreign language, an E.T.S. examination may be substituted for the departmental examination by petition to the graduate committee of the Department of Speech Communication.

Dissertation. Each student must register for at least 24 semester hours of dissertation credit in Speech 600. In addition, the student must register for at least one semester hour of credit in Speech 600 during any academic term in which the services of any faculty member are utilized in the supervision of or consultation concerning the dissertation. If the student's reliance upon faculty assistance justifies, he or she may be required by the dissertation adviser to register for an appropriately greater number of credit hours in Speech 600.

The dissertation director shall, upon consultation with the student, be responsible for setting up a dissertation committee, supervising the dissertation and administering the final oral examination. The dissertation committee shall approve the dissertation prospectus and pass upon the completed dissertation and oral examination. Students are required to submit two copies of the dissertation to the Graduate School, one copy to the Department of Speech Communication, and one copy to the dissertation director.

Interdisciplinary Program. Students who have been admitted to the doctoral program in speech communication and who wish to develop an interdisciplinary program, should review the guidelines set forth on page 20 of this catalog. The graduate dean approves interdisciplinary Ph.D. programs only when they bear the endorsement of the principal sponsoring department. A student who wishes to apply for an interdisciplinary program in which speech communication will be the principal sponsoring department should understand that the program of study must include substantial involvement with courses in speech communication and that the department may require the student to meet other requirements similar to those established for the doctoral program in speech communication.

Speech Pathology and Audiology

The Department of Speech Pathology and Audiology offers graduate work leading to the Master of Science and Doctor of Philosophy degrees in speech pathology and

audiology. The program at the master's level is designed to develop a high level of competence in the assessment and treatment of persons with communication disorders. The Ph.D. program has as its objective the training of advanced students to become specialized teachers and researchers in concentrated areas in speech pathology and audiology.

Course work at the master's level should be planned to meet the academic and professional requirements for state and national certification, which are required for professional employment, depending upon one's goal in placement. The M.S. degree program should culminate in eligibility for one or both of the following certificates: (a) the special certificate in speech and language impaired of the Illinois State Teacher Certification Board; (b) the Certificate of Clinical Competence of the American Speech and Hearing Association. ASHA certification is usually required for work in agencies, hospitals, medical centers, etc. The program in clinical training is approved and registered with the Education and Training Board of the American Board of Examiners in Speech Pathology.

Essentially, the departmental program matches the program requirements of the American Speech and Hearing Association, which state that the student must complete a well-integrated program comprised of a minimum of 60 semester hours, including normal aspects of human communication, development thereof, disorders thereof, and clinical techniques for evaluation and management of such disorders. Thirty of the sixty hours must be in courses that are acceptable toward a graduate degree by the University in which they are taken.

Students who have not had an adequate undergraduate background in speech pathology and audiology will be required to take leveling courses as determined by the department.

GRE aptitude test scores must be submitted to the department. While they are not mandatory for admission, they should be submitted upon application, or within the first semester of residence.

A number of graduate assistantships made available by the College of Communications and Fine Arts are awarded each year to students with outstanding scholastic records. The awards are usually made in the spring for the following academic year by the department. Students may also apply through the department for graduate fellowships and dissertation research awards that are awarded annually by the Graduate School.

Professional experiences for graduate students are provided in the following settings: the University's clinical center; a summer residential camping program for persons with organic speech problems; the V.A. Hospital in Marion; A. L. Bowen Center for Retarded Children; nursing homes; and Anna State Hospital. Cooperative programming is maintained with other public and private agencies such as the Division of Vocational Rehabilitation, the Easter Seal Society, the National Association of Speech and Hearing Agencies, and the University of Illinois Division of Services for Crippled Children. Students participate in traveling speech and hearing clinics which serve schools and communities through the media of surveys, diagnostic examinations, and therapy.

Specialized experiences with orthodontists, prosthodontists, plastic surgeons, otologists, and others of the medical and dental professions are available in the St. Louis and Chicago areas as well as the medical school at Southern Illinois University at Carbondale and the dental school at Southern Illinois University at Edwardsville. Emphasis is on the interdisciplinary relationships with other professions throughout the training process.

The department maintains many active research facilities which provide laboratories and specialized equipment for the study of both the normal and impaired functions of the speech and hearing processes. The speech science laboratory is equipped for electromyographic study of the speech musculature, radio telemetry, electrophysiology of hearing, and spectrographic analysis of speech signals. The experimental audiology laboratory, which includes a large

anechoic chamber, is equipped for investigations in air and bone conduction sensitivity, localization and speech discrimination. The laboratory also has the needed equipment for studies in automatic audiometry, PGSR, middle ear impedance, and aural reflex experimentation. Another large laboratory is equipped with specialized modular television equipment for the experimental analysis of behavior and behavior modification. This laboratory also has equipment for the measurement of physiological indices of emotion, such as units for palmar sweat and electrophysiologic skin measurements. The availability of sophisticated instrumentation has made programmatic approaches to language research problems possible in the language laboratory. The department also maintains extensive materials and a laboratory for cleft palate.

Additional information regarding financial aid, programs, and application procedures can be secured by writing to the chairman, Department of Speech Pathology and Audiology, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. Inquiries from qualified graduates in other fields are welcomed, particularly those interested in interdisciplinary programs.

Master's Degree

The master's degree requires a minimum of 30 semester hours of acceptable graduate credit (3.0 average), at least 15 semester hours of which are of the 500 level, and the completion of an approved thesis or research paper. Specific course requirements and total number of hours are determined by advisement after consultation with the graduate student. A comprehensive examination as required by the Graduate School will be given by the faculty after the student has completed two semesters of full time work.

It is recommended that students plan their programs to meet the academic and practicum requirements for the Certificate of Clinical Competence in speech pathology or audiology as designated by the American Speech and Hearing Association and for the special certificate in speech and language impaired for the Illinois State Teacher Certification Board.

A candidate for the master's degree has two options: to write a thesis or a research paper. Credit for the master's thesis may range from 3 to 5 semester hours of credit. A research paper is required of those who do not undertake a thesis. A paper should show evidence of the student's ability to formulate and present research in a form which demonstrates an acceptable level of scholarship. All students intending to pursue doctoral studies are encouraged to write a thesis. If the student plans to continue at Southern Illinois University at Carbondale, a thesis is mandatory.

Doctor of Philosophy Degree

Students, after consultation with their academic advisers, are expected to propose to the graduate faculty of the department the academic program they intend to pursue prior to taking the preliminary examination for admission to candidacy. The proposed program must meet the Graduate School requirements for residency, and shall exclude course work designed to meet the research tool requirement. The program must also include a cognate area which will assure a meaningful competence in subject matter outside the student's major department. Graduate faculty approval of the proposal signifies an agreement between the student and the department.

After satisfactory completion of the above, students may request the preliminary examination. The preliminary examination shall be written and administered by no fewer than 5 graduate faculty members representing the concentration, cognate, and research interests. Should students fail the first examination, they may, with faculty approval, repeat the examination once within a 12-month period.

After successful completion of the approved academic program, research tool, and the preliminary examination, the student will be recommended to the

Graduate School for admission to candidacy for the degree. The candidate must then complete a dissertation showing capability in independent research.

The final examination shall be oral and cover the subject of the candidate's dissertation and related academic and professional matters.

Research Tool

- a. The research tool shall replace neither a required nor a prerequisite element of the student's proposed academic program and must be completed before the student will be permitted to take the preliminary examination for admission to candidacy.
- b. The student must demonstrate an ability to deal with descriptive and inferential statistics and research design techniques. Ordinarily this will be accomplished by completing an appropriate sequence in statistics, as approved by the graduate committee of the Department of Speech Pathology and Audiology. Competency will be demonstrated by achieving a *B* average in the course sequence, or by proficiency. The sequence should be considered to be outside of any specific degree requirement.

Theater

The Department of Theater offers programs of study leading to the Master of Arts and the Master of Fine Arts degree in theater and to a concentration in theater for the Doctor of Philosophy degree in speech communications.

Graduate study in theater (at the master's level particularly) is organized more or less formally into the following areas of study: (1) acting, (2) directing, (3) design: scenic/costume, (4) playwriting, (5) history and criticism, (6) dance, (7) children's theater, Soviet and East European theater, music theater, or an approved interdisciplinary group of courses.

All students enrolled in the M.A., M.F.A., and Ph.D. degree programs will be expected to select one of these areas as their area of special interest and to demonstrate special competence in that field. Ph.D. students will also be expected to demonstrate competence in a cognate speech communication area: oral interpretation, interpersonal relations, rhetoric and public address, speech education, or language behavior.

Admission

Application for admission to graduate study in theater should be directed to Graduate School. Supporting materials for the application should be sent to the director of graduate studies in the theater department. These materials consist of (1) a personal and professional data form, and (2) three letters of recommendation from former teachers or supervisors. The official forms for these materials may be obtained from the director of graduate studies, Department of Theater. Applications and supporting materials should be submitted at least eight weeks prior to the beginning of the semester in which the student expects to begin the chosen field of study.

An undergraduate major in theater is not essential for admission to a graduate degree program in theater. A student with an undergraduate major in speech or English, for instance, may audit undergraduate courses in theater to make up any deficiencies.

Departmental processing of applications for acceptance as a graduate student in theater is the responsibility of the department's graduate adviser, who serves as adviser for all graduate students until such time as a faculty adviser or committee is named for the individual student, which is usually done not later than the middle of the first semester in residence.

Graduate students are urged to supplement their class work with practical

experiences in acting and production. Membership in the Southern Players is open to graduate students, and they may also earn graduate credit as members of the Southern Touring Company and the Summer Playhouse Company.

Master of Arts Degree

Requirements for admission imposed by the department are in addition to those of the Graduate School. The department will ordinarily accept as candidates for the master's degree only those applicants who: (1) have graduated from an accredited four year college or university; (2) have completed a minimum of 24 quarter or 16 semester hours in the field of theater or speech; (3) have a 2.7 (4 point scale) overall grade point average, or alternatively, a 3.0 overall for the last two years of undergraduate work; and (4) have a 4.0 overall average in theater or speech. Applicants who do not meet these minimal requirements or their equivalent, but who do meet the minimum standards of the Graduate School, can be considered for acceptance only on petition to the department's graduate adviser which, if granted, will be accompanied by a statement specifying the special conditions or requirements of admission.

A minimum of 30 semester hours of credit, no more than 6 of which may be for the thesis, constitutes the basic course requirements for the Master of Arts degree. At least 15 of these hours must be at the 500 level. The course work must be so planned as to include at least 3 hours of work in each of three of the eight areas of study.

A student who completes only the minimum of 30 hours of course work may devote no more than 5 of those hours to courses outside the department unless the work is in a cognate field which has been approved as a replacement for one of the areas of concentration within the department. In the latter event, as many as 10 hours in outside fields may be counted within the 30 hour minimum.

Each candidate for a Master of Arts degree must take the departmental course Theater 500: introduction to research methods. Candidates for the Master of Arts degree must demonstrate proficiency in a foreign language or complete a research-tool project relevant to either (1) professional skills (acting, directing, playwriting, etc.) or (2) a research area in a specialized interest.

A student must maintain an overall 3.0 (4-point scale) grade point average in order to be eligible for the Master of Arts degree.

The departmental graduate adviser is at the service of students by registering them in courses, helping them plan their program, and conferring with the students in the selection of the chairman and members of a thesis committee. The topic of the thesis, which is required, is chosen in consultation with committee chairman at the earliest practical time.

The final oral examination will cover the thesis and the major area in which it was written, and it may also test the candidate's general competence in the field of theater.

The Master of Fine Arts

While the department's requirements for admission to graduate-degree programs coincide with those of the Graduate School, a student who wishes to earn the M.F.A. degree must follow a program procedure in order to qualify for admission to this degree program.

Students must take 11-12 hours of core courses in the department: a directing course (Theater 402 a or b); seminar in theater arts, aesthetics (Theater 526); contemporary developments in the theater (Theater 438); one course in the concentration with directing students taking a course in acting; and a qualifying project consisting of a piece of creative work which may be registered for under 1 hour of independent study (Theater 530). If a student has taken equivalent content elsewhere, other courses suggested by the graduate adviser or the advisory committee may be substituted.

Successful completion of these courses with a grade of *B* or better will not in itself assure the student of candidacy for the M.F.A. degree; the student must also satisfy the faculty as being artistically qualified for admission to the program by demonstrating above-average talent in one of three areas: (1) acting-directing, (2) design: scenic/costume, and (3) playwriting. Artistic qualification may be determined after demonstrated ability is shown by a portfolio of designs, for example, or by directing, or designing a laboratory production, or by submitting play manuscript(s). Each potential candidate will also be interviewed by a faculty committee or jury. The judgment of the faculty committee in the evaluation of artistic qualifications will be final.

Once admitted as a candidate for the M.F.A. a student will complete 48 hours of courses (including 6 for the thesis) and a creative project in the area of concentration under the guidance of his adviser.

It is assumed that the majority of students applying for admission to the M.F.A. program are graduates of institutions other than SIU. All such transfer students must give evidence of having completed elsewhere practical training of thoroughness and quality which is the equivalent of the undergraduate work offered in theater at SIU at Carbondale. Transfer students who hold an M.A. or M.S. in theater from another institution will not, under any circumstances, be accepted for the M.F.A. until they have successfully fulfilled the requirements and thus given evidence at Southern Illinois University at Carbondale of their qualifications.

Doctor of Philosophy Degree

Prospective doctoral students should carefully study the program description in speech communication.

For the degree of Doctor of Philosophy, theater students are required (1) to complete a minimum of 37 hours of course work exclusive of the research tool, and (2) to complete a dissertation in theater. A minimum of 23 of these hours are taken in theater and the remainder comprise a cognate composed of courses from related areas of competence, 11 from speech, and the rest may be from courses outside the Departments of Speech communication and Theater.

Students in the Doctor of Philosophy program who have a special interest in dramatic literature may, upon the approval of their advisory committee, earn the degree by substituting for theater courses a limited number of courses in dramatic literature as offered in the Department of English. A similar specialization may be built from courses in radio-TV, cinema, fine arts, etc., upon advisory approval.

Qualified students may offer a creative equivalent in producing, playwriting, or design, under the supervision of an advisory committee. For the Doctor of Philosophy degree with a concentration in theater a student must demonstrate competence in one research tool (refer to speech communication for description) relevant to skills needed for understanding materials in the field, or in the conduct of research for the dissertation, or in continuing research contributions in the field of concentration. Students must also satisfy the graduate staff that they are qualified for candidacy by passing a comprehensive preliminary examination. Graduate courses in theater may also be taken as a secondary concentration leading to the Doctor of Philosophy degree with a concentration in one of the areas of competence in speech communication.

Vocational Education Studies

The Department of Vocational Education Studies offers three programs (business education, home economics education, and occupational education) and cooperates with the Department of Agricultural Industries in offering a concentration in agricultural education. The programs are described below.

BUSINESS EDUCATION

Graduate courses in vocational education studies and business education may be taken as a major or minor leading to the Master of Science in Education degree in business education.

Admission to the program must be approved by the faculty of business education, in the Department of Vocational Education Studies with approval dependent upon the preparation, ability, and promise of the individual student. For the Master of Science in Education degree, there are no formal admission requirements beyond those of the Graduate School.

The graduate program is planned for those students who have an adequate subject-matter background in at least one of the following business teaching areas: (1) secretarial, (2) general business or consumer education, (3) bookkeeping and accounting, (4) distributive education, or (5) data processing. Deficiencies in background, if any, must be eliminated by taking appropriate courses.

Master's Degree

The program is aimed at upgrading and making more proficient those individuals who have already met or surpassed the minimum requirements for teaching business subjects in the high school, community college, or other type of educational institution offering business education curricula.

The major consists of a minimum of 30 semester hours of course work distributed as follows:

1. Twelve or more hours in vocational education studies and business education courses (including thesis), such as: improvement of instruction in the secretarial subjects, teaching distributive education, teaching consumer education, principles and problems of business education, research in vocational, occupational and career education, and organization and administration of cooperative vocational business education. A minimum of two of the following courses is required: VES 561, VES 566, VES 511, VES 512. Four-hundred level courses taken for undergraduate credit cannot be taken again for graduate credit.
2. Six or more hours in business or economics courses offered by departments in the College of Business and Administration, or by the Department of Economics, or in the concentration of business education in the Department of Vocational Education Studies.
3. Eight or more hours in courses not generally considered to be business education.

Each student's program is tailored to meet the particular needs and interests, within the general requirements of the Graduate School.

In keeping with the general requirements of the Graduate School, each student is required to conduct an investigation and write a thesis or a research report. Those who have special interest and ability in research or who expect to go on to advanced graduate study are encouraged to write a thesis.

The thesis may be counted for not more than six nor less than three semester hours of credit. Two copies of the approved thesis must be presented to the Graduate School at least three weeks prior to the date of graduation, to be bound and shelved in the library. For nonthesis programs, a research paper should show evidence of the student's knowledge of research techniques and should be based on a special project.

The passing of a final written examination is required at the end of the program. The examination is given each April and July. Broad, essay-type questions are asked that require the student to apply the knowledge acquired in solving realistic problems. Each student selects four of the following areas to be included in the

examination, writing on each area from forty to sixty minutes: (1) teaching typewriting, (2) teaching shorthand and transcription, (3) teaching bookkeeping and accounting, (4) teaching office practice and machines, (5) teaching general or basic business and consumer education, (6) teaching distributive education, (7) teaching data processing, (8) vocational business education, (9) office management, (10) records administration, (11) principles and problems of business education, (12) research in business education, (13) tests and measurements in business education, (14) administration and supervision of business education.

Fellowships and teaching assistantships are available to qualified graduate students. All carry stipends and remission of tuition. Applications for these awards should be submitted by February 1.

Additional information concerning the graduate program in business education may be obtained by writing to the program coordinator of business education in the Department of Vocational Education Studies.

HOME ECONOMICS EDUCATION

Graduate programs in home economics education in the Department of Vocational Educational Studies are designed to prepare persons to qualify for the following types of positions:

- a. High school teaching, including supervision of student teachers in home economics.
- b. Teacher education in colleges and universities.
- c. City, state, or similar supervisory positions.
- d. Directing or teaching of adult programs of home economics.
- e. Teaching or coordinating occupational education programs.
- f. Junior college teaching.

These programs also meet the needs of those who desire to go into teacher training, state supervision, vocational education, or cooperative extension work. All students are encouraged to supplement their courses in home economics education with preparation in related areas and general professional education.

In addition, a student enrolled in a program leading to the Ph.D. degree in education with a concentration in secondary education, higher education or occupational education may select the elective portion of the program from graduate courses offered in the program of home economics education in the Department of Vocational Education Studies.

Program Requirements for Admission

- a. Admission to the Graduate School.
- b. A bachelor's degree from an accredited college, with a major or its equivalent in home economics education. Under certain circumstances a student without sufficient background in home economics education and education may be admitted with the approval of the adviser and allowed to make up undergraduate deficiencies concurrently with graduate study. Courses taken to correct undergraduate deficiencies will not apply to minimum requirements for the degree.

Program Requirements for the Degree

- a. The Master of Science in Education degree in home economics education requires a minimum of 30 semester hours of graduate credit. Twenty to twenty-two hours in home economics education and vocational education studies courses are required for all students. The additional hours required will be selected in terms of the candidate's vocational objectives from one or more related fields such as: education, anthropology, art, psychology, and sociology.

- b. Required courses for all students in the home economics education program are: Guidance 502, introduction to statistical methods; Vocational Education Studies 561, methods of research, or equivalent.
- c. All students are expected to evidence competency in the areas of curriculum, methodology, evaluation, and philosophy. High school teachers wishing to qualify as supervising teachers in student teaching centers should include VES 522 in their programs.
- d. Students preparing for positions listed in B and C above will include VES 522 and when possible 597, the practicum in supervision. Such students will, in addition to the home economics education requirements, include a minimum of 6 hours of related work from the field of education.
- e. Students preparing for work in occupational education programs include VES 466, principles and philosophy of vocational-technical education; VES 525, vocational cooperative education; a work experience practicum; and other courses as needed to provide sufficient skill background. Two thousand hours of work experience in home economics related occupations are required for full approval for vocational coordinator positions.
- f. Students preparing for junior college teaching should take HIEd 526, the community junior college; VES 466, principles and philosophy of vocational-technical education; and subject matter courses in two or more areas of home economics. An internship program is available for qualified students.

OCCUPATIONAL EDUCATION

Programs leading to the Master of Science in Education degree and the Master of Science degree in occupational education and to a concentration in occupational education for the Doctor of Philosophy degree in education are offered through the Department of Vocational Education Studies. Each program is individually tailored by the student's advisory committee to meet the student's career objectives.

Student with degrees in education, science, technology, or other specialties may qualify for advanced study which involves technical subjects, study in work situations and educational institutions, and internship in teaching, research, or other professional assignments.

Programs of study are developed by the student and the adviser depending upon interests, and career goals. Programs are flexible, and course work may be done in other units of the University. The student is advised to prepare for one major area of study; no minor is required. Some areas of study are: teacher of industrial oriented health, or personal and public service occupations; industrial arts; coordinator of cooperative occupational education; and supervisor, director, or administrator of programs in secondary, area vocational, community junior colleges, industry, or other vocational-technical or occupational systems.

Teaching or research assistantships, and fellowships are available to qualified applicants. Additional information about programs, courses, assistantships, and fellowships may be obtained from the Coordinator of Graduate Studies in Occupational Education in the Department of Vocational Education Studies.

Master of Science in Education Degree

The Department of Vocational Education Studies offers the Master of Science in Education degree in occupational education for the development of competencies in one of the occupational or vocational-technical concentrations. This degree requires a minimum of 30 hours, including 2-6 hours of research paper.

Requirements: Other requirements include:

1. Completion of a minimum of 16 hours in occupational education and vocational education studies with the following courses required: VES 466-3, VES 561-3, VES 562-3, and VES 574-3.

2. An individually designed program of studies approved by the student's advisory committee before completion of 8 hours of the credit applied to this degree.
3. A research paper which meets guidelines of the Graduate School and has the approval of the student's graduate adviser.
4. Copy of draft research paper must be submitted to the student's adviser 6 weeks before graduation.

Master of Science Degree

This degree specialization is offered to the student who desires to develop research oriented competencies in the study of occupational education such as the construction and testing of teacher-learning equipment, physical measurement problems, curriculum development, and evaluation. Each candidate for the Master of Science degree is required to complete 32 hours of graduate credit and to submit an approved thesis.

Requirements: Other requirements include:

1. Complete a minimum of 20 hours in vocational education studies and occupational education. Required courses are: VES 466-3, VES 561-3, VES 562-3, VES 574-3, and 2-6 hours of VES 599.
2. An individually designed program of studies approved by the student's advisory committee before completion of 8 hours of the credit applied to this degree.
3. Required research competency such as statistics, computer programming or other research methodology as approved by the student's advisory committee.
4. Nine to 12 hours in a concentration selected to strengthen the student's expertise in the thesis topic area. Selection of courses must be approved in advance by the student's advisory committee.
5. Advisory committee approval of thesis topic and proposal no less than 4 months in advance of graduation.
6. Copies of draft thesis must be submitted to the student's advisory committee 6 weeks before graduation.

Zoology

The Department of Zoology offers the Master of Arts, Master of Science, and the Doctor of Philosophy degrees. These degrees are awarded on the basis of demonstrated scholarship and the ability to organize, conduct, and report original research. Opportunities are available for experience in teaching and research.

Admission

Applicants for all graduate degrees must fulfill the requirements of the Graduate School.

Applicants for the master's degree must possess the following academic background: 24 semester hours in courses covering the basic principles of zoology; one year of college chemistry (organic or biochemistry is also desirable); one year of college mathematics including college algebra and trigonometry (calculus and statistics are desirable). A grade point average of 2.70 (A = 4.0) or above. Applicants with less than 2.70 will be considered on individual merit.

Applicants for the doctoral degree must demonstrate a sound background of academic training in the animal sciences; hold a master's degree or its equivalent (exceptional individuals may be admitted following the bachelor's degree.); have a grade point average in graduate work of 3.25 (where A = 4.0) or above.

Inquiries should be directed to the director of graduate studies in Zoology. Separate applications must be made to the Graduate School and to the Department

of Zoology. A completed departmental application for admission includes: departmental application form, transcript of all previous college credits, scores from the aptitude test of the Graduate Record Examination and three letters of evaluation relative to professional and academic competence. All applicants will be notified of the action taken on their application by the director of graduate studies in Zoology.

Advisement

Following admission to the department, and prior to registration, a student should consult appropriate faculty (representing student's area of interest) or the director of graduate studies in zoology for assistance in registration. Each student must arrange with a faculty member to serve as an adviser no later than the end of the first semester of registration in the program. A change in the adviser will be coordinated by the director of graduate studies in zoology at the request of the student and with the approval of the current and prospective professors.

Following selection and approval of an adviser, an advisory and research committee is to be recommended to the director of graduate studies in zoology for approval by the graduate dean. For the master's degree, the committee shall consist of a minimum of three members, one of whom may be from outside the department, with the adviser serving as chairman.

For the doctoral degree the advisory and research committee shall consist of five faculty members, one of whom must be from outside of the department. The adviser shall serve as chairman.

A program of course work and tools as required must be approved by the advisory and research committee, and made a part of the student's departmental file no later than the first week of the second semester of registration in the program.

A research plan approved by the student's advisory and research committee must be placed in the student's departmental file prior to registration for Zoology 593 (when 593 is used as part of the M.S. requirement), 599 or 600 no later than the end of the second semester of registration in the program. The doctoral student should file a research plan no later than the end of the second semester in the program.

Academic Credit

Audited courses may not be counted toward completion of minimum hour requirements toward the degree. No course with a grade below *C* will fulfill minimal requirements of the degree. A petition for the use of transfer credits must be approved by the student's advisory and research committee and submitted to the director of graduate studies in zoology for forwarding to the dean of the Graduate School for approval.

Master of Arts Degree

A minimum of 30 hours of graduate credit is required beyond the bachelor's degree including at least 18 hours of formal course work in zoology and 6 hours of Zoology 599.

In addition, one of the following tools is required: a foreign language either by completion of FL 288b with a grade of *A* or *B* or a score of at least 465 on the ETS proficiency exam, or two semesters of one of the following: statistics, computer science, mathematics, biochemistry, or biotechnology.

A thesis embodying results and analysis of original research and a final examination are required.

Master of Science Degree

A minimum of 38 hours of graduate credit is required beyond the bachelor's degree including at least 24 hours of formal course work in zoology, and 2 hours of Zoology 593. A research paper demonstrating the ability of the student to collect and

analyze data and report results in a scientific manner is required. A library research problem is acceptable but must include an original contribution in the form of correlations and interpretations. A final examination is required.

Required Level of Performance in Master's Program. A cumulative grade point average of at least 3.0 must be attained during the first two semesters in all graduate level work, and must be maintained thereafter. Failure to meet this requirement will result in loss of any financial support provided by the department. A grade of C or better must be earned in all background (undergraduate) courses to remove deficiencies.

A passing performance on a written examination covering the general concepts of zoology is required no later than the end of the second semester of registration in the program. With approval of the student's committee, the examination may be repeated one time, but this must be done before the end of the third semester in the program. There will be a periodic review of all graduate students; and to continue in the program, all retention requirements listed above must be accommodated.

Final Examination

1. Each candidate for a master's degree is required to pass a final examination. The examination will be oral and should be taken no later than three weeks before graduation.
2. The examination consists of two parts:
 - a. Presentation of the results of the research in a seminar.
 - b. A closed session of inquiry by the student's advisory and research committee following the seminar.

Graduation. Candidates for a master's degree must follow and fulfill all Graduate School procedures and requirements for processing application for graduation.

The Ph.D. Degree

No minimal number of credit hours is required for the degree. A student in consultation with an adviser prepares a program of study including courses in the major, in the minor, in areas of deficiency, and to complete the research tool requirement. This program when approved by the student's advisory and research committee is filed with the director of graduate studies in zoology.

Acceptable tools include foreign language, statistics, computer science, mathematics, biochemistry, and biotechnology. Normally two tools are required; however, one tool with exceptional expertise may satisfy the requirement if approved by the student's committee (exception: English as a second language). A student may qualify in a foreign language by completion of FL 288b with a grade of A or B or a score of at least 465 on the ETS proficiency exam. To qualify in statistics, a student must have course work through multiple regression analysis, which is Guidance 506 and 507. In computer science a student should take Computer Science 202 and one of the following: 302, 311F or 470. For the tool requirements in mathematics, biochemistry, and biotechnology, the student will arrange a program of two or three courses acceptable to the advisory committee. Previously acquired skills or knowledge may satisfy the tool requirement if the student passes an appropriate proficiency examination.

A 3.25 grade point average in graduate level course work must be maintained; a minimum grade point average of 3.00 (B) is required for all course work. No course in which the grade is below C is acceptable for credit.

Preliminary Examinations. These examinations (oral and written) are taken after the tool requirement and a major portion of formal course work are completed, usually at the end of the second year of graduate study. The student after consulta-

tion with the adviser and the director of graduate studies in zoology registers with the chairman of the preliminary examination committee to take the examination. The written examination covers the general principles and concepts in zoology, and the oral portion emphasizes the area of specialization and minor.

Dissertation. The nature of the research to be used for the dissertation is established in consultation with the student's adviser, and is approved by the advisory and research committee. An approved copy of the research proposal is filed with the director of graduate studies in zoology. The student is required to register for a minimum of 24 semester hours in Zoology 600, Dissertation Research. The dissertation is evaluated by the student's advisory and research committee, reviewed for approval by the chairman and forwarded to the graduate dean for final approval.

Final Examination. Upon approval of the dissertation by the student's advisory and research committee, the candidate requests the director of graduate studies in zoology to schedule a seminar. Following the seminar, a final examination over the dissertation is conducted by the student's committee. Both the seminar and examination are open to the public.

Graduation. Candidates for a Ph.D. degree must follow and fulfill all Graduate School procedures and requirements for processing application for graduation.

3

Course Descriptions

In this chapter all 400- and 500-level courses offered by Southern Illinois University at Carbondale are described. Courses are listed numerically within each subject-matter area. Areas are listed below in order of their appearance on the following pages.

Administration of Justice	Engineering Biophysics	Mining Engineering
Agricultural Industries	Engineering Technology	Molecular Science
Agriculture	English	Music
Animal Industries	Foreign Languages and	Philosophy
Anthropology	Literatures	Physical Education
Art	Chinese	Physics and Astronomy
Biology	Classical Studies	Physiology
Botany	French	Plant and Soil
Business Administration	German	Science
Accountancy	Greek	Political Science
Administrative Sciences	Japanese	Psychology
Finance	Latin	Public Visual
Marketing	Russian	Communications
Chemistry and Biochemistry	Spanish	Radio-Television
Cinema and Photography	Forestry	Recreation
Communications and Fine	Geography	Rehabilitation
Arts	Geology	Religious Studies
Comprehensive Planning	Guidance and Educational	Science
and Design, Division of	Psychology	Social and Community
Clothing and Textiles	Health Education	Services, Division of
Design	Higher Education	Black American Studies
Interior Design	History	Community Development
Computer Science	Human Development,	Social Welfare
Curriculum, Instruction,	Division of	Sociology
and Media	Child and Family	Special Education
Economics	Family Economics and	Speech Communication
Education	Management	Speech Pathology
Educational Leadership	Food and Nutrition	and Audiology
Engineering	Human Resources	Theater
Electrical Sciences and	Industrial Technology	Vocational Education
Systems Engineering	Journalism	Studies
Engineering Mechanics	Linguistics	Business Education
and Materials	Mathematics	Home Economics
Thermal and	Medical Education	Education
Environmental	Preparation	Occupational Education
Engineering	Microbiology	Zoology

The first entry for each course is a three-digit identification numeral. Courses numbered 400-499 are open to both seniors and graduate students, unless designated otherwise. Courses numbered above 499 are for graduate students only.

Following the course identification number is another number which indicates

maximum credit allowed for the course. The maximum may vary, and specific semester hours may be assigned for each term a course is offered.

Following the course description may be prerequisites which must be satisfied before a student will be permitted to enroll. Graduate students will not receive graduate credit for Pass/Fail grades. They may not register for 400-level courses in which Pass-Fail grading is mandatory and may not receive a grade of *Pass* or *Fail* in 400-level courses graded Pass/Fail on an elective basis. Graduate credit is awarded for 500-level courses which have been approved to be graded *S/U* (Satisfactory/Unsatisfactory) only.

Graduate students at Southern Illinois University at Carbondale are required to purchase textbooks, instructional materials, and supplies needed for each course. Field trips are required for certain courses.

All courses offered in a specific term will be listed in the appropriate Schedule of Classes, published three times a year by University Graphics, Southern Illinois University at Carbondale, Illinois 62901.

Administration of Justice

The following courses are offered through the Center for the Study of Crime, Delinquency, and Corrections.

406-3 Legal Aspects in the Administration of Justice. Substantive jurisprudence in the criminal law, including historical and analytical; substantive law relating to police, courts, and corrections including factors affecting decision making. Prerequisite: 305, or graduate status, or consent of instructor.

415-3 Prevention of Crime and Delinquency. Multidisciplinary analysis of the functions, goals, and effectiveness of measures to forestall delinquency and crime. Etiology of delinquent behaviors as related to community institutions such as police, courts, corrections, mental health clinics, schools, churches, and citizen groups. Prerequisite: 200 and 201 or consent of instructor.

416-3 Methods of Criminal Justice Research. The principles of scientific inquiry as applied to the study of the criminal justice system. Overview and examples of project design, evaluative research, methodology and statistical techniques appropriate to criminal justice research. Strongly recommended for students who plan to conduct empirical research in fulfillment of master's thesis requirement. Prerequisite: 200 and 201 or consent of instructor.

417-3 Research Practicum in the Administration of Justice. Application of the principles set forth in 416. Experience in the various phases of an actual research project, including project design, data collection and analysis, and effective communication of results via written reports. Prerequisite: 200 and 201 and 416 or consent of instructor.

471-3 Principles of Management in the Administration of Justice. Basic principles and techniques of the management in law enforcement, correctional, and other criminal justice agencies. Prerequisite: 200 and 201 or consent of instructor.

472-3 The American Correctional System. (Same as Sociology 472.) A survey of the correctional field, covering probation, institutional treatment, and parole. Historical development, organizational structure, program content, and current problems. Prerequisite: 200 and 201 or consent of instructor.

473-4 Juvenile Delinquency. (See Sociology 473.) Prerequisite: 200 and 201 or consent of instructor.

485-3 Corrections and the Community. Traditional correctional functions are redefined to emphasize development of resources of community at large, diversion of convicted offenders from institutions, and direct involvement of correctional programs in community affairs. Prerequisite: 200 and 201 or consent of instructor.

490-1 to 3 Independent Study in the Administration of Justice. Supervised readings or independent investigative projects in the various aspects of crime control, treatment of offenders; and management of programs of law enforcement, courts, and correctional agencies. May be repeated up to a maximum of three credit hours. Prerequisite: 200 and 201 or consent of instructor.

492-2 to 6 (2 to 3 per semester) Contemporary Issues in Administration of Justice. A forum for focusing on special interest topics depending on the availability of staff, visiting professors, and other selected instructional resources to cover a contemporary issue of concern to students and the faculty. May re-enroll for a maximum of six credits. Prerequisite: 200 and 201 or consent of instructor.

500-3 History and Philosophy of Criminal Justice System. Exploration of the origins and significance of key ideas influencing the rise and development of criminology as multidisciplinary theory and practice. Prerequisite: consent of instructor.

504-3 Criminological Theory. Multidisciplinary study of biogenic, psychogenic, and sociogenic explanations for criminal behavior relevant to policy-making and practice in criminal justice. Prerequisite: consent of instructor.

562-3 Fundamental Legal Systems in Criminal Justice. Practical use of a law library culminating in two legal research papers. The philosophical and historical evolution of law with emphasis on the development of American legal procedures. Prerequisite: graduate status.

571-3 Correctional Systems in Criminal Justice. Evaluation of corrections as a system, its programmatic interrelationships and conflicts, and the probable course of its future development. Prerequisite: consent of instructor.

572-4 Seminar in Criminology. (See Sociology 572.)

578-1 to 4 Seminar in Correctional Rehabilitation Counseling. Review of major issues and research relative to rehabilitation practices in youth and correctional settings. Prerequisite: consent of instructor.

580-3 Planning for Change in the Administration of Justice. A simulated planning and design experience with real justice system problems is offered. Each student is required to individually investigate a criminal justice sub-system, study the literature and theoretical foundation on modifying such systems, and develop a comprehensive plan to deal with the assigned system.

582-3 Criminal Law and the Correctional Process. Basic principles and administration of the criminal law and the legal foundations of the juvenile court, the sentencing process, parole and probation, and the changing concept of mental competency. Includes statutory, case, and administrative law requirements of "due process" in correctional services.

584-3 Seminar in Criminological Program Management. Seminar application of management concepts, including program evaluation, to the practice settings of programs in law enforcement and correctional agencies. Prerequisite: 471 or consent of instructor.

587-3 Seminar in Law Enforcement. Multidisciplinary study of the philosophical premises, theoretical implications, and functions of contemporary law enforcement. Prerequisite: consent of instructor.

590-1 to 3 Supervised Readings in Selected Subjects. Readings supervised by a faculty member in a selected area of the Administration of Justice. Prerequisite: consent of a faculty sponsor.

592-3 Advanced Seminar in Administration of Justice. Seminars of varied content for advanced students. Prerequisite: consent of instructor.

595A-3 or 6 Supervised Field Work (Internship). Experience in law enforcement agencies, juvenile courts, probation and parole departments, correctional institutions, delinquency control programs, and public or voluntary agencies. Orientation sessions precede placement. Graded *S/U* only. Prerequisite: consent of instructor.

595B-3 or 6 Supervised Field Work (Internship). Experience in law enforcement agencies, juvenile courts, probation and parole departments, correctional institutions, delinquency control programs, and public or voluntary agencies. Orientation sessions precede placement. Graded on a letter grade basis. Prerequisite: consent of instructor.

599-3 to 6 Thesis. Graded *S/U* only. Prerequisite: consent of academic coordinator.

Agricultural Industries

Field trips are required for certain courses. The School of Agriculture offers courses in agricultural industries as part of a residence-center program at Western Illinois University.

401-3 Agricultural Law. Relations of common-law principles and statutory law to land tenure, farm tenancy, farm labor, farm management, taxation, and other programs involving agriculture. Prerequisite: junior standing or consent of instructor. Elective Pass/Fail.

402-1 to 18 (1 to 6 per topic) Problems in Agricultural Industries. (a) Agriculture Economics. (b) Agriculture Education. (c) Agriculture Mechanization. Designed to improve the techniques of agriculture industries workers through discussion, assignment, and special workshops on problems related to their field. Emphasis will be placed on new innovative and currently developed techniques for the field. A limit of six hours will be counted toward graduation in a master's degree program. Prerequisite: consent of chairman.

411-3 Program Development in Agricultural Extension. Principles and procedures in developing extension programs with emphasis on program determination and methods. Prerequisite: junior standing.

412-2 Principles of Agriculture Mechanization. Theory and use of educational materials and devices adaptable to the needs and interests of educators involved in agricultural mechanization laboratories.

414-3 Adult Education Procedures, Methods, and Techniques. Determining adult education needs and interests of the community. Securing and organizing the information needed for adult education programs and planning teaching activities.

415-3 Beginning Teacher Seminar. The application, in the professional field setting of principles and philosophies of the education system. Includes application of principles of curricula construction, programming student and community needs. Prerequisite: consent of instructor.

440-3 Land Resource Economics. (Same as Economics 471.) The use of land as an economic variable in production of goods and services; land markets; group versus individual conflicts; and land utilization as related to institutional arrangements. Prerequisite: 204, GSB 211 or consent of instructor. Elective Pass/Fail.

442-2 Agricultural Development in Emerging Countries. Principles and practices in improving agriculture in areas with limited capital and low levels of technology. Prerequisite: 204 or GSB 211. Elective Pass/Fail.

443-2 Marketing Practices and Problems in Developing Countries. Types of markets, assembly of products, storage, transportation, quality determination, and pricing practices which are peculiar to the developing countries. Market organization and practices for the major export products and the principal domestic foods and fibers in such countries. Various methods of progressively improving such markets. Prerequisite: 204 or equivalent. Elective Pass/Fail.

450-3 Advanced Farm Management. The role of the farm manager in credit institutions, professional farm management service and the self-employed farmer will be emphasized. The concepts of farm marketing, farm finance and decision making as integrated in the management process will be central. Field trips not to exceed \$25. Prerequisite: 350 or equivalent. Elective Pass/Fail.

451-2 Farm Real Estate Appraisal. Principles and practices of farm real estate appraisal. Application of capitalization, market and cost approaches for estimating market value. Understanding of special valuation methods used for buildings, insurance, assessments, loans and condemnation. Field trips not to exceed \$10. Prerequisite: 350 or consent of instructor. Elective Pass/Fail.

453-3 Advanced Farm Planning Techniques. Application of linear programming to farm planning including enterprise selection, resource allocation, and least cost ration formulation. Farm decision making under uncertainty and analysis of farm expansion alternatives. Prerequisite: 350 or consent of instructor. Elective Pass/Fail.

460-3 Agricultural Prices. Measurement and interpretation of factors affecting agricultural prices. Construction of index numbers, trend analysis, seasonal and cyclical price movements and the measurement of relationships between price and other variables. Prerequisite: 362 or equivalent.

461-3 Agriculture Business Management. Function of top management in agribusiness, such as: determining objectives, developing sound and consistent policies for achieving objectives; organizing the administrative personnel to carry out the plans; guiding and maintaining the administrative organization. Prerequisite: 360.

462A-1 Agricultural Marketing Problems and Practices — Livestock. Problems and their solutions in marketing livestock. Prerequisite: 362. Elective Pass/Fail.

462B-1 Agricultural Marketing Problems and Practices — Field Crops. Problems and their solutions in marketing field crops. Prerequisite: 362. Elective Pass/Fail.

462C-1 Agricultural Marketing Problems and Practices — Dairy and Poultry. Problems and their solutions in marketing dairy and poultry products. Prerequisite: 362. Elective Pass/Fail.

462D-1 Agricultural Marketing Problems and Practices — Horticultural Crops. Problems and their solutions in marketing horticultural crops. Field trips cost \$5.00. Prerequisite: 362. Elective Pass/Fail.

463-2 Commodity Futures Market. The mechanics of futures market trading, commodity charting, technical and fundamental trading approaches, hedging and risks in commodity speculation will be emphasized. The history, development, and importance of the commodity future market will be reviewed and the role of participants and supporting institutions will be presented. Prerequisite: junior or senior standing. Elective Pass/Fail.

472-3 Agricultural Tractors and Engines. The principles of operation, selection, mechanics, maintenance, tune-up and testing of multi-cylinder farm type internal combustion engines. Prerequisite: 379 or equivalent, or concurrent enrollment or consent of instructor.

473-2 Advanced Agricultural Electricity. Application of electricity to agricultural problems. An emphasis on principles of electrical distribution on the farm and the agribusiness operation. Planning the efficient usage of electrical machinery and a study of components parts to increase productivity and save labor. Prerequisite: 379 or equivalent.

474-2 Advanced Agricultural Structures. A discussion and study of design characteristics applicable to farm structures. Consideration of economics, costs, environment, arrangements, materials and type of structures. Plans and drawing of farmstead layout, service buildings, and rural residential buildings will be made. Prerequisite: 378 or equivalent.

475-3 Agricultural Materials Handling, Processing, and Storage. Arrangement of systems for animal waste disposal, feed handling, and processing, and storage of agricultural products. Prerequisite: 378 or 379 or 473 or 474.

500-4 (2, 2) Agricultural Industries Research Methodology. (a) Social science research

methodology in agriculture including defining research problems, preparing project proposals, and sources of data. (b) A survey of techniques and procedures for developing and evaluating agricultural economic research models.

551-3 Resource Allocation in the Agri-Business Firm. An examination of resource allocation in the agri-business firm. Production decisions, agricultural product price analysis, and decision making models are considered. Prerequisite: six hours of agricultural economics or economics or consent of instructor.

552-3 Problems and Policies of the Agricultural Sector. An analytical survey of agricultural policy issues including agricultural price and income stabilization; international trade, capital and credit, the structure of agriculture and the quality of life in rural areas. Prerequisite: six hours of agricultural economics or economics or consent of instructor.

571-3 Current Problems and Research in Agricultural Power and Machinery. A study and analysis of current problems, research findings, and innovations in agricultural power units and machinery. Prerequisite: 471 or 472 or equivalent.

581-1 to 12 (1 to 4 per topic) Seminar. (a) Agriculture Economics. (b) Agriculture Education. (c) Agriculture Mechanization. Study and discussion in selected topics under the supervision of an approved graduate faculty member. A maximum of four hours can be counted toward a Master of Science degree.

588-1 to 8 International Graduate Studies. University residential graduate study program abroad. Prior approval by the department is required both for the nature of program and the number of semester hours of credit.

590-1 to 4 Readings. Readings in specialized topics under the direction of an approved graduate faculty member. Graded *S/U* only.

593-1 to 4 Individual Research. Directed research in selected topics under the supervision of an approved graduate faculty member. Graded *S/U* only.

595-1 to 4 Agricultural Occupation Internship. Prepares coordinators to fulfill their responsibilities in selected areas in agricultural related occupations through an internship in the area of specialization and through orientation to related technical information. Prerequisite: consent of department.

599-1 to 6 Thesis. Work in the research for and presentation of a thesis under the supervision of an approved faculty member. Graded *S/U* only.

Agriculture

401-3 Fundamentals of Environmental Education. (Same as Forestry 401 and Recreation 401.) A survey course designed to help education majors develop an understanding of environmental problems and an awareness of how these types of problems can be handled both inside and outside the classroom. Prerequisite: ten hours of biological science, or ten hours of recreation or education, or consent of instructor.

423-3 Environmental Interpretation. (Same as Forestry 423 and Recreation 423.) Principles and techniques of natural and cultural interpretation. Two hours lecture, three hours laboratory. Approximately \$10 cost for field trips. Prerequisite: ten hours biological science or ten hours of recreation.

Animal Industries

Field trips are required for certain courses. The School of Agriculture offers courses in animal industries as part of a residence-center program at Western Illinois University.

414-2 Animal Feed Quality Control. Laboratory procedures for nutrient determinations used in animal feed quality control. Prerequisite: course in chemistry recommended.

415-3 Monogastric Nutrition. Advanced principles and practices involved in meeting nutrient requirements of monogastric animals. Prerequisite: 215 and 315 recommended.

416-3 Ruminant Nutrition. Practical knowledge gained of problems associated with digestion, absorption, and metabolism of nutrients as related to domestic ruminants, horses and other pseudoruminants. Prerequisite: 215 and 315 recommended.

419-3 Stable Management and Horsemanship. Laboratory experience in routines of horse care, training, and management. Field trips. Additional costs \$5. Prerequisite: 319.

420-4 Commercial Poultry Production. Principles and practices of management of broilers, layers, and turkeys as adapted to commercial operations. Field trip. Prerequisite: 315 or consent of instructor.

421-2 International Animal Production. A study of world animal production practices with emphasis on the developing countries. Adaptability of animals to environmental extremes and management practices employed to improve productivity. Prerequisite: junior standing plus 121 or one year of biological science. Elective Pass/Fail.

430-4 Dairy Cattle Management. Application of the principles of breeding, nutrition, physiology, and economics to management of a profitable dairy herd. Breeds of dairy cattle, housing, milking practices, and quality milk production. Field trip. Students enrolled will incur field trip expenses of approximately \$25. Prerequisite: 315, 332.

431-4 Reproductive Physiology of Domestic Animals. Comparative anatomy and physiology of the male and female reproductive system of domestic animals; hormones, reproductive cycles; mating behavior; gestation and parturition; sperm physiology; collection and processing of semen; artificial insemination; pregnancy tests; diseases. Prerequisite: 121 or a course in physiology.

432-2 Quantitative Inheritance of Farm Animals. A review of the genetic principles underlying changes in animal breeding population; interpretations of gene frequency, heritability, and genetic correlations; application of selection and breeding systems in farm animals. Prerequisite: 332. Elective Pass/Fail.

434-2 Physiology of Lactation. Anatomy and physiology of milk secretion; endocrine control; milk precursors and synthesis; milk composition; physiology and mechanics of milking, mastitis. Prerequisite: course in physiology.

455-2 Animal Waste Management. Acquaints the student with the scope and problems involved with animal waste management, current regulations and laws on environmental protection. Principles covering waste management technology and current livestock waste management systems are presented. Field trips will be scheduled. Prerequisite: junior standing.

465-4 Swine Production. Swine production systems and management techniques including breeding and selection, reproduction, nutrition, herd health and disease prevention, housing and waste management, marketing, production costs and enterprise analysis. Field trip. Prerequisite: 315 and 332 or consent of instructor.

480-3 Sheep Production. Breeding, feeding, and management of sheep. Field trip. Prerequisite: 315.

485-4 Beef Production. Beef cattle production systems and management, breeding and selection, reproduction, nutrition, and herd health with emphasis on the most economical and efficient systems. Field trip. Students enrolled will incur field trip expenses of approximately \$5. Prerequisite: 315 and 332 or consent of instructor.

500-3 Research Methods in Agricultural Science. Experimental design and biometry as applied to biological and allied fields. Prerequisite: graduate student.

502-2 Surgical Research Techniques in Farm Animals. Basic methods of experimental surgery and sampling of biological materials in research on farm animals. Practice of techniques discussed in the lectures. Prerequisite: consent of instructor.

506-3 Instrumentation Methods in Agricultural Science. Basic methods and techniques of spectrophotometric and chromatographic instrumentation are taught in the lectures with application of instruments carried out in the laboratories. Prerequisite: consent of instructor.

515-3 Energy and Protein Utilization. Energy and protein utilization including digestion, absorption, and metabolism as related to domestic animal production. Prerequisite: consent of instructor.

516-3 Minerals and Vitamins in Animal Nutrition. Basic and applied principles of mineral and vitamin metabolism. Emphasis on metabolic functions, reaction mechanisms and interrelationships. Prerequisite: consent of instructor.

531-2 Livestock Management for Reproductive Efficiency. An advanced course in livestock reproduction and its application to management problems. Current research in reproductive physiology applicable to the management of farm herds and flocks will be discussed. Prerequisite: 431.

581-1 to 2 (1, 1) Seminar. Problems relating to various phases of animal industries. Maximum of one hour per semester.

588-1 to 8 International Graduate Studies. University residential graduate study program abroad. Prior approval by the department is required both for the nature of the program and the number of credit hours.

590-1 to 3 Reading in Animal Industries. Reading in specialized fields under direction of approved graduate specialists.

593-1 to 3 Individual Research. Investigation of a problem in animal science under the supervision of an approved graduate specialist.

599-1 to 6 Thesis. Credit is given for a master's thesis when it is accepted and approved by the thesis committee.

Anthropology

400A-3 Current Problems in Physical Anthropology. The collection, analysis and interpretation of data on human populations. Problems in the study of human populations, including inbreeding, natural selection, fertility, drift and migration. Prerequisite: 300A for undergraduates or consent of instructor.

400B-3 Current Problems in Linguistic Anthropology. Presentation and discussion of

ongoing development in theory and methodology in linguistic anthropology. Prerequisite: 300B for undergraduates or consent of instructor.

400C-3 Current Problems in Archaeology. Detailed consideration of various aspects of current directions in archaeological method and theory. Prerequisite: 300C for undergraduates or consent of instructor.

400D-3 Current Problems in Social-Cultural Anthropology. A survey of current problems in the description and analysis of non-Western social systems. Prerequisite: 300D for undergraduates or consent of instructor.

401-3 Language and Culture. Linguistics and the study of culture in relation to animal communication, language acquisition, linguistic typology and universals, ethnosemantics and sociolinguistics. Prerequisite: 300B for undergraduates or consent of instructor.

402-3 Man and Culture. Offered primarily for non-anthropology majors. Focuses on the nature of culture and cultural processes with emphasis on the relationship of cultural behavior to man as an individual and as a group.

404-3 Technology and Anthropology. An introduction to the basic ways in which Man utilizes the natural resources of his habitat to meet his various needs, such as food, shelter and transportation. Consideration will be given to the types of materials used and the tools and appliances manufactured by non-Western peoples to meet their needs.

405-3 Art and Anthropology. The nature of art, its locus in culture, its integration in society as exemplified in world cultures.

406-3 Conservation Archaeology. The method and theory of archaeology in relationship to local, state, and federal laws regarding the protection and excavation of antiquities. Emphasis is on problem-oriented survey and excavation, as well as the preparation of archaeological contracts and the writings of reports to satisfy statutes involving environmental concerns. Prerequisite: 300C or 400C or consent of instructor.

409-3 History of Anthropology. The development of anthropological thought from the Age of Discovery to the present. The emphasis will be on the intellectual and social milieu which fostered general and specific conceptual views and methods. Considered are developments in the several major subfields of anthropology including archaeology, anthropological linguistics, human biology, and cultural anthropology. Required for all anthropology graduate students. Prerequisite: None. 300D recommended for undergraduates; 400D or equivalent recommended for graduate students.

410A-3 Applied Anthropology. The practical applications of theoretical social anthropology. Problems of directed culture change are examined from an anthropological perspective as they apply to the work of the educator, social worker, extension agent, administrator and others who are attempting to guide change in the life ways of others in Western culture and the third world. Prerequisite: none. 300D recommended for undergraduates.

410B-3 Educational Anthropology. An examination of the cultural processes of formal and informal education, the use of anthropological premises in educational program design, bicultural-bilingual education programs, comparative American/non-American systems, and the teaching of anthropology. Prerequisite: none. 300D recommended for undergraduates.

410C-3 Economic Anthropology. The study of non-Western economic systems. Prerequisite: none. 300D recommended for undergraduates.

410D-3 Anthropology of Folklore. A comparative study of the role of folklore in various cultures of the world, with emphasis upon nonliterate societies. Analysis of motifs, tale-types, themes and other elements; comparisons between nonliterate and literate groups. Prerequisite: none. 300D recommended for undergraduates.

410E-3 Anthropology of Law. Anthropological thought on imperative norms, morality, social control, conflict resolution and justice in the context of particular societies, pre-literate and civilized. Law of selected societies is compared to illustrate important varieties. Prerequisite: none. 300D recommended for undergraduates.

410F-3 Anthropology of Religion. A comparative study of (religious) belief systems, with emphasis upon those of non-literate societies. Examination of basic premises and elements of these belief systems, normally excluded from discussions of the "Great Religions". Prerequisite: none. 300D recommended for undergraduates.

410G-3 Psychological Anthropology. Similarities and differences in personality structures cross-culturally including the historical development of this as an anthropological subdiscipline. Prerequisite: none. 300D recommended for undergraduates.

410H-3 Ethnomusicology of Oceania, Asia and Africa. A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Oceania, Asia and Africa.

410I-3 Ethnomusicology of Middle East, Europe and the New World. A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Europe and the New World.

410J-3 Kinship and Social Organization. Universal features of non-Western systems of kinship terminology and social organization. Topics include the structure and functioning of kinship systems, lineages, clans, sibs, phratries, moieties, and tribal units. Prerequisite: none. 300D recommended for undergraduates.

420-3 to 9 Advanced Studies in Languages of the World. Attention given to language

families, focusing on studies of linguistic history, genetic relationships, and typological classification. Any one semester will concentrate on language of a major geographical area. Prerequisite: 300B or 400B or consent of instructor.

425-3 Cognitive Anthropology. The theory of culture as cognitive organization is explored. Among the topics are: formal analysis of lexical domains, folk classifications and strategies, the problem of psychological validity, linguistic determinism and relativity, biogenetic and psycholinguistic bases of cognition, and the "new ethnography".

430A-3 Archaeology of North America. Detailed study of the early cultures of North America. Emphasis on the evolutionary cultural development of North America. Prerequisite: 300C or 400C or consent of instructor.

430B-3 Archaeology of Meso-America. Detailed study of the early cultures of Meso-America with emphasis on the evolutionary cultural development of Meso-America. Prerequisite: 300C or 400C or consent of instructor.

430C-3 Archaeology of the Southwest. Detailed study of the early cultures of the Southwest with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.

430D-3 Archaeology of the Old World. Detailed study of the early cultures of the Old World with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.

440A-3 Human Evolution. An advanced consideration of the fossil evidence for human evolution and evaluation of the various theories regarding the course of human evolution. Prerequisite: 300A or consent of instructor.

440B-3 Race and Human Variation. A consideration of the range, meaning and significance of contemporary human biological variation, including evolutionary and adaptive implications and the utility of the race concept. Prerequisite: 300A or consent of instructor.

441-3 Laboratory Analysis in Archaeology. Methods of analysis of archaeological data in a laboratory setting.

450-6 (3, 3) Museum Studies. A detailed study of museum operation to include (a) Methodology and display and (b) Administration, curation, and visits to or field work with area museums. Practical museum work will be stressed in both (a) and (b) and (a) must be taken before (b).

460-1 to 12 (1 to 3 per semester) Individual Study in Anthropology. Guided research on anthropological problems. The academic work may be done on campus or in conjunction with approved off-campus (normally field research) activities.

480-3 Honors Seminar. Topics to be arranged by agreement of participating faculty and students. Not open to graduate students. Prerequisite: consent of department. Elective Pass/Fail.

495-6 to 8 Summer Ethnographic Field School. An eight-week field research training program in Southern Illinois communities. Students will attend seminars on campus and in the field, but the greater part of the time will be spent engaging in continuous team research under the direction of the faculty members involved in the program. Some form of cooperative living arrangement in the field will be organized. The program is open to advanced undergraduate and graduate students. Prerequisite: consent of instructor.

496-1 to 8 Field School in Archaeology. Apprentice training in the field in archaeological method and theory. Students will be expected to be in full-time residence at the field school headquarters off campus. Prerequisite: consent of instructor.

499-3 Honors Thesis. Directed reading and field or library research. The student will write a thesis paper based on original research. Not open to graduate students. Prerequisite: consent of department. Elective Pass/Fail.

510-2 to 6 (2 to 3 per topic) Seminar in New World Archaeology. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

511-2 to 6 (2 to 3 per topic) Seminar in Meso-American Archaeology. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

512-2 to 6 (2 to 3 per topic) Seminars in Old World Archaeology. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

515A-3 Seminar in Social-Cultural Anthropology. Discussion of anthropological concepts of social structure and related topical themes, based upon extensive reading selected from a large number of sources. Prerequisite: 409 or consent of instructor.

515B-3 Seminar in Social-Cultural Anthropology. Intensive analysis of a limited set of monographs organized around a theoretical problem or set of problems. Prerequisite: 409 or consent of instructor.

520-2 to 6 (2 to 3 per topic) Seminar in New World Ethnology. From year to year, the areal and topical coverage of this course will vary, as will instructors. Students should consult the department about subjects to be covered.

521-2 to 6 (2 to 3 per topic) Seminar in Ethnology of Latin America. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

522-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Oceania. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

523-2 to 6 (2 to 3 per topic) Seminar in Anthropology of Africa. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

545-2 to 6 (2 to 3 per topic) Seminar in Anthropological Linguistics. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

560-2 to 6 (2 to 3 per topic) Seminar in Comparative Social Organization. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

562-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Contemporary Peoples. From year to year, the areal and topical coverage of this course will vary, as will the instructor. Students should consult the department about subjects to be covered.

565-2 to 6 (2 to 3 per topic) Seminar in Culture Change and Development. From year to year, the areal and topical coverage of this course will vary, as will the instructor. Students should consult the department about subjects to be covered.

567-2 to 6 (2 to 3 per topic) Seminar in Anthropological Theory and Method. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

570-2 to 6 (2 to 3 per topic) Seminar in Art and Technology. From year to year, the areal and topical coverage of this course will vary, as will the instructors. Students should consult the department about subjects to be covered.

571-2 to 6 (2 to 3 per topic) Visual Anthropology. The anthropology of visual communication.

576-2 to 6 (2 to 3 per topic) Seminar in Anthropological Research Design. Supervised training in the preparation of anthropological research designs. Requirements will include completed research proposals involving the relation of data to theory and results in the general sub-areas of archaeological, physical, social and linguistic anthropology. Coverage will vary. Students should consult the department.

581-2 to 6 (2 to 3 per topic) Seminar in Anthropology. From year to year, the areal and topical coverage of this course will vary, as will the instructor. Students should consult the department about subjects to be covered.

585-1 to 12 (1 to 3 per semester) Readings in Anthropology. Guided readings to cover special topics and fill gaps in the student's specialized anthropological background, to be arranged with department.

590-1 to 12 Internship in Conservation Archaeology. The purpose of this course is to allow pre-professional archaeologists to be introduced to an actual archaeological or administrative milieu. This will normally take the form of a supervised field project, but the project may be excavation, survey, or aspects of administration.

595-4 (2, 2) Field Methods in Ethnology. (a) Stresses field methods in ethnology, including anthropological methods of inquiry and documentation of cultures and habitat together with appropriate instruction in the technique of field work such as photography and sound recording. (b) Stresses the linguistic context of culture, its appropriate recording, and structural study.

596-4 (2, 2) Field Methods in Archaeology. (a) Includes anthropological methods of inquiry and documentation of culture and habitat, together with appropriate instruction in the techniques of field work. (b) Stresses the practical application of archaeological methods and techniques to field work.

597-1 to 12 Fieldwork in Anthropology. To be arranged with department. Graded *S/U* only.

599-1 to 6 Thesis.

600-1 to 32 (1 to 12 per semester) Dissertation.

Art

Art studio courses (400-499, 500-598) are directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the major field.

Courses in this department may require the purchase of supplemental materials. Permission of the major adviser in each studio is required for enrollment in studio courses.

400-2 to 16 Drawing I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite:

- Undergraduates-300-8. Graduates-consent of major adviser in appropriate art discipline.
- 401-2 to 16 Painting I.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-301-8. Graduates-consent of major adviser in appropriate art discipline.
- 402-2 to 16 Printmaking I.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-302-8. Graduates-consent of major adviser in appropriate art discipline.
- 403-2 to 16 Sculpture I.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-303-8. Graduates-consent of major adviser in appropriate art discipline.
- 404-2 to 16 Ceramics I.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-304-8. Graduates-consent of major adviser in appropriate art discipline.
- 405-2 to 16 Metalsmithing I.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-305-8. Graduates-consent of major adviser in appropriate art discipline.
- 406-2 to 16 Fibers/Weaving I.** Art studio course directed toward helping the student develop a sense of visual organization through individual research in fibers/weaving while gaining skill and facility in the use of these materials and their use in the student's creative expression. Prerequisite: undergraduates, 306-8; graduates, consent of major adviser in appropriate art discipline.
- 408-2 to 9 (2 to 3, 2 to 3, 2 to 3) Basic Research in Art Education.** Each student demonstrates via class presentation, term papers and answers to exam question, a knowledge of basic research techniques and applications; important literature in the field of art education; broad research meanings; a theory of art education and material on behavioral objectives presented in class and via tape-slide self instruction programs.
- 414-2 to 16 Glassblowing I.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-consent of instructor.
- 418-2 to 9 (2 to 3, 2 to 3, 2 to 3) Individual Teaching Methods.** Each student demonstrates an understanding of individual teacher-directed self-evaluative teaching methods involving studio projects, teacher-student evaluative sessions, individual projects, lecture-discussions and a term paper. Incidental fee \$20.00 maximum.
- 419-3 17th and 18th Century Art.** Painting, sculpture, and architecture in Europe from the Baroque period to the French revolution.
- 427-3 Art Since 1945.** Painting, sculpture, and architecture since World War II. Main emphasis is on the shift of artistic innovation from western Europe to the United States.
- 428-3 Individual Problems in Art Education for Elementary Education Majors.** Individual concentration on one studio discipline and its application to preschool, elementary education, early childhood and special education. Incidental expenses will be at least \$20.00. Prerequisite: 348a.
- 429-3 20th Century Art to World War II.** Painting, sculpture, and architecture in Europe from the turn of the century to 1945.
- 439-3 American Art to World War II.** Painting, sculpture, and architecture in the United States from the Colonial period to 1945.
- 447-3 Introduction to Museology.** A survey of museum and gallery techniques answering questions concerning contractual agreements, taxes, insurance, packing, shipping, exhibit design and installation, record systems, general handling, public relations and sale of art works directed toward problems encountered by the artist outside the privacy of his/her own studio. Prerequisite: art major or consent of instructor.
- 449-3 Renaissance Art.** Painting, sculpture, and architecture in Italy and Northern Europe during the Renaissance period and its culmination in 16th Century Mannerist Art.
- 457-3 Women in the Visual Arts.** Consists of lecture, discussion, and research in the following areas: women artists in history and the contemporary art world, the image and symbolism of the female form, women as art patrons, and women in photography, film, crafts, and architecture. Screening fee will be \$10.
- 467-3 Critical Issues in Contemporary Art.** An examination of the style and meaning of contemporary art in relation to the current political, social, and cultural issues. Will include visual arts, architecture, and communications media.
- 477-3 Art of the Thirties.** A study of American art (painting, sculpture, mural art, crafts, etc.) during the Great Depression. Special emphasis will be placed on the origins of governmental patronage of the arts; its success and failure.
- 499-2 to 16 Individual Problems.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas

that form the content and experience of the student's major field. Designed to adapt to student's individual needs in problem research. Can be used for interdisciplinary program flexibility. Prerequisite: consent of instructor.

500-2 to 16 Drawing II. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field.

501-2 to 16 Painting II. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field.

502-2 to 16 Printmaking II. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field.

503-2 to 16 Sculpture II. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field.

504-2 to 16 Ceramics II. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field.

505-2 to 16 Metalsmithing II. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: consent of instructor.

506-2 to 16 Fibers/Weaving II. Art studio course directed toward developing the student's sense of visual organization and imagery by intensive, individual research in fibers/weaving or that aspect that he has chosen to explore. Prerequisite: consent of instructor.

507-3 to 6 (3, 3) Readings in Art History. Individual assistance and investigation to discover new meaning and involvement in graduate studio work through the literature of art.

508-2 to 9 (2 to 3, 2 to 3, 2 to 3) Research in Art Education. Each student demonstrates via class presentations, a term paper, surveys of research reports and formulations of research designs, an understanding of advanced art education research procedures, analyses and implications; new process and product research techniques; and research in artistic creativity, perception and the evolution of art images. Prerequisite: consent of instructor.

514-2 to 16 Glassblowing II. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: consent of instructor.

517-3 to 6 (3, 3) Concepts in Art History. Group seminar to discuss and present aspects of the history of art in relation to both traditional and contemporary artistic concerns.

518-2 to 9 (2 to 3, 2 to 3, 2 to 3) Seminar in Art Education. Each student shows evidence, via class presentation, a term paper and evaluations of individual and group projects, an understanding of important literature; the latest developments and trends in philosophical, psychological and sociological concepts in art education and methods for developing rationale for art curriculum and instruction programs. Prerequisite: consent of instructor.

599-2 to 6 Thesis. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field.

Biology

There is no graduate program in biology (see Chapter 2 for biological sciences).

Botany

For all field courses in Botany, students will be assessed a transportation fee. In addition, certain courses may require the purchase of additional materials and supplies, generally \$1 to \$5 in total cost.

400-4 Plant Anatomy. An introduction to cell division, development and maturation of the structures of the vascular plants. Laboratory. Prerequisite: 200 or consent of instructor.

404-4 The Algae. A phylogenetic approach to the study of algae with emphasis on comparative cytology, morphology, and ecology. Laboratories include a detailed survey of freshwater algae and a general treatment of representative marine forms. Two lectures and two two-hour laboratories per week. Prerequisite: 204 and 205 or consent of instructor.

405-4 The Fungi. A survey of the fungi—their structure, development relationships, ecological roles, and economic importance. Two lectures and two laboratories. Prerequisite: 204 or equivalent.

- 406-3 Bryology.** Structure, development, and relationships of the liverworts, hornworts, and mosses. Two lectures and one laboratory per week. Prerequisite: 204 or equivalent.
- 409-3 Field Mycology.** The taxonomy, ecology, and distribution of fungi in southern Illinois and environs with emphasis on techniques of specimen collection, preservation, identification, and recognition. Prerequisite: 200; 204 recommended.
- 410-3 Taxonomy and Ecology of Bryophytes and Lichens.** Floristic studies of the moss, liverwort, hornwort, and lichen communities of southern Illinois. Prerequisite: 200 or equivalent, or consent of instructor.
- 411-4 Morphology of Ferns and Fern Allies.** The study of external form, internal structure, and relationships of ferns and fern allies, living and extinct. Two lectures and two laboratories per week. Prerequisite: 204.
- 412-4 Morphology of Seed Plants.** The study of external form, internal structure, and relationships of gymnosperms and angiosperms, living and extinct. Two lectures and two laboratories per week. Prerequisite: 204.
- 414-1 to 2 Paleobotany.** (Same as Geology 414.) The development of skills in paleobotany through the pursuances of specific laboratory or library research problems. Prerequisite: 400 or consent of instructor.
- 421-4 Botanical Microtechnique.** Introduction to practical methods of preservation and preparation of plant materials for laboratory and microscopic study. Paraffin and plastic embedding, and sectioning techniques, and use of general and histochemical stains stressed. Includes chromosome squashing, whole-mount preparation, photomicrography, and other techniques. One lecture and three laboratories per week. Prerequisite: 200 or equivalent.
- 425-10 (5, 5) Advanced Plant Physiology.** (a) Intermediary plant metabolism. Characterization of the photosynthetic and metabolic pathways of biosynthesis and degradation of organic constituents; role of environmental regulants of plant metabolism. (b) Physics of plants; membrane phenomena; water relations; mineral nutrition. Prerequisite: 320 and consent of instructor.
- 440-3 Grassland Ecology.** A study of grassland structure and function in relation to various biotic and abiotic factors. Cost of field trips (\$5.) and textbooks must be incurred by the student. Prerequisite: 304 and Biology 307 or equivalents.
- 443-4 Forest Ecology.** Distribution of forests and shrublands of the world in relation to climate and soil with emphasis on forest types of North America and of the Midwest. Autecology, physiological ecology, and genetics of major forest species. Two lectures per week with Saturday field trips and exercises. Prerequisite: Biology 307 or equivalent, or consent of instructor.
- 444-4 Analysis and Classification of Vegetation.** Includes concepts and analytical methods pertaining to plant community energetics, nutrient dynamics, succession, vegetation classification and niche theory. Laboratory will include the application of these concepts and methods to field situations. Cost of textbooks and travel fee (\$5.) must be incurred by the student. Prerequisite: Biology 307 or equivalent.
- 446-4 Tropical Ecology.** Two weeks of marine ecology on the atolls and extensive barrier reef off the coast of Belize, British Honduras, and two weeks of terrestrial ecology at several locations inland. Cost varies yearly. Summer. Prerequisite: advanced undergraduate or graduate standing in one of the biological sciences, and concurrent enrollment in zoology 446.
- 447-2 to 6 Field Studies in Latin America.** Two to six weeks of intensive field work to acquaint students with the flora and vegetation in various environments of Latin America and with ecological and taxonomic field techniques. Cost varies with type of study and location. Transportation cost: \$80.00. Prerequisite: advanced standing in one of the biological sciences and consent of instructor.
- 448-3 to 8 Field Studies in the Western United States.** Three to six weeks of intensive field work designed to acquaint students with the flora, vegetation, and environments of the Rocky Mountains and adjacent areas. Both ecological and taxonomic field methods are emphasized. Transportation cost (100), travel expenses, and textbooks must be incurred by the student. Prerequisite: 304, Biology 307 or equivalents, and consent of instructor.
- 449-2 Elements of Taxonomy.** Principles of taxonomy including historical sketch, phyletic concepts, classical and experimental methods. One lecture and three laboratory hours per week. Prerequisite: 304 or equivalent, or consent of instructor.
- 450-2 Plant Geography.** World distribution of plants related to environmental, floristic, and historical factors. Prerequisite: interest in biology.
- 456-4 Introductory Pathology.** A study of plant diseases caused by fungi, bacteria, and viruses. Special attention given diseases of southern Illinois plants. Laboratory and field trips.
- 457-3 Forest Pathology.** A study of the nature and control of tree diseases in forests, parks, streets, and nurseries. Fungal diseases are stressed.
- 460-3 Application of Statistical Techniques in Botanical Research.** Techniques of data handling and graphical representation, use of statistical tests, design of experiments and interpretation of results, and preparation of scientific papers. Students will choose individualized projects in the greenhouse, laboratory, field, computing center, or library. Two lectures per week plus conferences on projects. Prerequisite: ten hours in botany or equivalent.

462-4 Science Process and Concepts for Teachers of Grades N-8. (Same as Curriculum, Instruction, and Media 427.) Specifically designed to develop those cognitive processes and concepts needed by elementary teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

484-3 Palynology. (See Geology 484.)

490-3 Photographic Methods in Scientific and Biological Photography. Black and white and color. Specimen photography, macrophotography. Slides for presentation, materials and methods used in scientific publications. Prerequisite: consent of instructor.

491-3 Scientific Illustration. Materials and methods used in illustrating scientific publications including two-dimensional graphs, maps, lettering, and line drawings. Three dimensional techniques will also be covered. Prerequisite: consent of instructor.

492-2 to 6 Honors in Botany. Individual research problems available to qualified juniors and seniors. Prerequisite: consent of department chairman.

503-10 (5, 5) Advanced Angiosperm Taxonomy. Systematic treatment of every family of flowering plants in the world. Must be taken in sequence. Prerequisite: consent of instructor.

524-2 Advanced Plant Genetics. A consideration of incompatibility systems, paramutation, cytoplasmic inheritance, developmental genetics, and other genetic topics as they occur in higher plants. Prerequisite: Biology 305 or equivalent.

525-3 Cytology. (Same as Zoology 525.) An analysis of the subcellular and cytochemical organization of the cell. Structural-functional aspects of organelles, membranes, and other cellular components, their relationship to the metabolic nucleus, substructural organization of hereditary materials, and subcellular aspects of mitosis and meiosis are emphasized. Two lectures and one laboratory per week.

526-4 Cytogenetics. A study of structure, transmission, and mutation of nuclear and cytoplasmic genetic elements, with emphasis on the utilization of structural changes in chromosomes and of changes in chromosome number in theoretical and applied genetics. Two lectures and two laboratories per week. Prerequisite: Biology 305 and 306, or equivalent.

532-3 Embryogenesis and Organography of Plants. A study of the developmental anatomy and comparative morphology of embryophytes, with emphasis on analysis of homologous versus analogous structure. In particular, the following aspects of organ development will be considered: embryological origin, cellular pattern of formation, cytochemical and histological characterization, and diversification in form. Laboratory will allow students to observe the organographic features discussed. Prerequisite: 320, 400, or consent of instructor.

533-4 Plant Growth and Morphogenesis. A study of the role of the environmental variables (light, temperature, etc.) and phytohormones in the growth and morphogenesis of intact plants and tissue cultures. Analysis of growth and effects of these regulators will be the subject of the individualized laboratory study on a plant of the student's choice. Prerequisite: 320 or consent of instructor.

535-2 Energetics of Aquatic Ecosystems. Energy flows in aquatic habitats; photosynthesis and respiration rate determinations under natural and laboratory conditions; determination of dominant genera in the communities; daily and annual energy budgets; factors influencing utilization of light by biotic systems; influence of daily and annual energy budgets on stratification on current systems, and on seasonal succession in the community. Prerequisite: consent of instructor.

542-2 Biosystematics. An examination of species concepts and factors affecting the formation of species. Evidence from the fields of ecology, cytotaxonomy, genetics, and numerical taxonomy are discussed as well as the phenomena of hybridization, polyploidy, and apomixis. Two lecture and two laboratory hours per week. Prerequisite: consent of instructor.

543-2 Tree Growth. Physiological aspects of tree growth and development. Phases of the life cycle from germination to seed production will be analyzed for effects of light, temperature, moisture, nutrients, mycorrhiza, wind, air pollution, and other factors. Two lectures per week. Prerequisite: 320 or 443 or Forestry 331 or equivalent.

551-3 Upland Flora. The taxonomy, ecology, and distribution of the natural vegetation in and around upland habitats of the Mississippi Basin. Prerequisite: 304 or GSA 303 or consent of instructor.

552-3 Lowland Flora. The taxonomy, ecology, and distribution of the natural vegetation in and around aquatic and lowland habitats of the Mississippi Basin. Prerequisite: 304 or GSA 303 or consent of instructor.

570-2 to 3 Graduate Readings in Botany. A course of individually assigned readings in botanical literature. Every semester. Prerequisite: consent of instructor.

580-1 to 6 (1 per semester) Seminar. One hour discussion of current topics in biology. Every semester. Graded *S/U* only.

581-1 Ecology Seminar. Student discussions and presentations concerning various classical, contemporary, and controversial ecological topics. Prerequisite: consent of instructor.

582-1 Bryology Seminar. Student and faculty discussions and presentations concerning various classical, contemporary, and controversial topics in bryology, including systematics, morphogenesis, ecology, genetics, and natural history of all major families and key genera. Prerequisite: consent of instructor.

583-1 to 4 (1 per semester) Mycology Seminar. Student and faculty discussions and presentations concerning various classical, contemporary, and controversial topics in mycology. Prerequisite: consent of instructor.

584-3 Advanced Palynology. (See Geology 584.)

590-1 to 3 Introduction to Research. Methods of presentation of research materials, including bibliographies. Taxonomy students learn to write keys and descriptions; botanical Latin, nomenclature. Every semester. Prerequisite: consent of instructor.

591-2 to 9 Research. Assignments involving research and individual problems. Master's students may use this for their research for their thesis. Every semester. Prerequisite: consent of instructor.

599-2 to 9 Thesis. Course to be taken in the preparation of the master's thesis. Every semester. Prerequisite: consent of instructor.

600-1 to 36 (1 to 12 per semester) Dissertation. Course to be taken in the research for and in writing of the doctoral dissertation. Every semester. Prerequisite: consent of instructor.

Business Administration

Students desiring to enroll in these courses must be admitted to the MBA program or have permission of the associate dean for graduate study in business administration.

410-3 Accounting Concepts. Interpretation and critical analysis of reports, statements, and other accounting data from the viewpoint of users of financial information. Restricted to MBA students. Prerequisite: enrollment in MBA program or consent of instructor.

430-3 Business Finance. An introductory course combining both a description of the structure of business financing and an analysis of functional finance from a managerial viewpoint. Prerequisite: enrollment in MBA program or consent of instructor.

440-3 The Management Process. Analysis of management theories and the administrative process. Specific managerial activities are analyzed and discussed. Functional relationships in administered organizations are explored. Prerequisite: enrollment in MBA program or consent of instructor.

450-3 Introduction to Marketing Concepts. An overview of the role of marketing within an economic system and of the major marketing activities and decisions within an organization. Emphasis is on developing an understanding of the marketing process. Prerequisite: enrollment in MBA program or consent of instructor.

451-5 Methods of Quantitative Analysis. (See Mathematics 457.)

500-3 Research Applications in Business and Organizations. The analysis of actual problems in research: project design, data collection, analysis, interpretation, dissemination, and application in business and organizational settings. This includes an understanding of the proper utilization of appropriate research statistics and involves use of the computer for problem solving. Three lecture and two laboratory hours per week. Prerequisite: enrollment in MBA program or consent of instructor.

501-3 Operations Research I. A survey of quantitative approaches to business problems with specific emphasis on problem formulation, model building, and model solution. Topics include linear programming, transportation models, dynamic programming, inventory theory. Prerequisite: enrollment in MBA program or consent of instructor.

502-3 Business in our Capitalistic Society. Study of the external environment in which business in America operates; social, political, legal, and ethical dimension, interrelationships, and requirements. Prerequisite: enrollment in MBA program or consent of instructor.

510-3 Managerial Accounting and Control. Emphasizes the uses of accounting information by management for planning, control, and decision making and its behavioral impact. Includes study of job order and process cost systems. Prerequisite: enrollment in MBA program or consent of instructor.

511-3 Accounting Theory. Contemporary advanced accounting theory, including controversial issues with emphasis on net income determination and asset valuation; particular attention given to current publications of the professional and governmental agencies. Prerequisite: enrollment in MBA program or consent of instructor.

512-3 Auditing Concepts and Methods. Development of auditing theory and its implications for auditing practice; emphasis on auditing standards concepts; pronouncements and bulletins of the American Institute of Certified Public Accountants, and current literature. Prerequisite: enrollment in MBA program or consent of instructor.

514-3 Controllorship. Function of controllorship in a business organization; analysis of the duties and responsibilities of a controllor; contribution of a controllor to effective planning, coordination, and control through accounting, case studies. Prerequisite: enrollment in MBA program or consent of instructor.

515-3 Accounting Informations Systems. Basic concepts underlying information systems design and operation for integrated business operations. Concepts are developed within

the framework of economic information requirements, business organization theories, decision models and information flow criteria. Survey of accounting, marketing, and production subsystems, planning and budgeting systems, and computer-based systems. Prerequisite: enrollment in MBA program or consent of instructor.

519-3 Seminar in Accounting. Discussion of current accounting theories, principles, standards, and problems. Prerequisite: enrollment in MBA program or consent of instructor.

521-3 Business Conditions Analysis. Emphasis is given to macro-economic theory as it affects economic forecasting. Particular emphasis is given to GNP forecasting models, industry forecasts, and forecasting for the firm. Prerequisite: enrollment in MBA program or consent of instructor.

526-3 Managerial Economics. Develops conceptual framework for business decision making with emphasis on demand, costs, prices, and profits. Prerequisite: enrollment in MBA program or consent of instructor.

530-3 Financial Management. A study of financial principles and practices with special emphasis on their relation to managerial planning and control. Prerequisite: enrollment in MBA program or consent of instructor.

531-3 Advanced Financial Management. An evaluation of selected financial policies connected with the acquisition and disposition of funds by the firm. An emphasis is placed on quantitative solutions to these problems. Prerequisite: enrollment in MBA program or consent of instructor.

532-3 Financial Institutions and Markets. The Principal financial institutions and markets will be studied in relation to their contribution to the efficient operation of the individual enterprise and the total company. Prerequisite: enrollment in MBA program or consent of instructor.

533-3 Investment Concepts. A study of fixed return and variable return securities, investment services, industry and issue analysis, empirical studies of groups and individual stock price movements. Prerequisite: enrollment in MBA program or consent of instructor.

539-3 Seminar in Finance. Current issues and practices in finance. Each student will select a problem for intensive exploration and report his findings to the class in two minor and one major report. Prerequisite: enrollment in MBA program or consent of instructor.

540-3 Managerial and Organization Behavior. Case analyses of human problems in the business organization. Application of findings of behavioral science research to organization problems. Development of direction and leadership skills. Prerequisite: enrollment in MBA program or consent of instructor.

541-3 Operations Research II. Continuation of the survey of topics and approach taken in 501. Problem formulation; model building and elementary mastery of state-of-the-arts solution techniques are emphasized. Topics include integer programming, traveling salesman problems, probabilistic programming, queuing, simulation and inventory theory. Prerequisite: 501; enrollment in MBA program or consent of instructor.

543-3 Personnel Management. An overview of the field of personnel administration, based on a review of the relevant literature and on practice in simulations of problems typically encountered in the field. Prerequisite: enrollment in MBA program or consent of instructor.

544-3 Production-Operations Management. A graduate level survey of the design operation and control of systems or processes by which materials, labor, and capital are combined in an organized way with the objective of producing goods or services. Techniques mastered in 501 and 541 will be heavily relied upon such as linear and dynamic programming, network analysis, and queuing theory. Topical coverage includes the systems concept, planning, forecasting, job design, location, layout, logistics, scheduling and production, inventory, quality, labor and cost control. Prerequisite: 501 or equivalent.

549-3 Seminar in Administration. Study of contemporary administrative theory and practice with focus on certain special topics, new or current trends, and research. Individual and group projects are emphasized. Specific topics to be covered will be determined by the instructor in consultation with students. Prerequisite: enrollment in MBA program or consent of instructor.

550-3 Marketing Management. A managerial approach to the study of marketing. Emphasis is on the nature and scope of the marketing manager's responsibilities and on marketing decision making. Prerequisite: enrollment in MBA program or consent of instructor.

551-3 Product Strategy and Management. Designed to treat product management and its relationships with business policies and procedures; the development of multiproduct strategies, means of developing such strategies, and the problems and methods of commercialization. Prerequisite: enrollment in MBA program or consent of instructor.

552-3 Advanced Marketing Research and Analysis. The development of advanced procedures, methods and theory of quantitative and qualitative analysis of primary and secondary marketing data. Prerequisite: enrollment in MBA program or consent of instructor.

555-3 Consumer Behavior. Emphasis on theories and experimental techniques drawn from the behavioral sciences. Prerequisite: enrollment in MBA program or consent of instructor.

559-3 Seminar in Marketing. Study of current issues and problems in marketing and an evaluation of contemporary marketing theory and practice. Prerequisite: enrollment in MBA program or consent of instructor.

580-3 International Business Operations. Course is designed to provide an overview of the international dimension of a firm's operations. Alternative methods for reaching foreign markets, operational adjustments and specific problems in dealing with foreign environments, are the principal areas of consideration. Prerequisite: enrollment in MBA program or consent of instructor.

591-3 Independent Study. Directed independent study in selected areas of business administration. Prerequisite: enrollment in MBA program or consent of instructor.

598-3 Business Policies. Study of the development and evaluation of business strategies and policies as they relate to the overall performance of the firm within its environment. Knowledge of the functional areas of administration, available business data, and analytical tools will be utilized in solving comprehensive business cases and simulation games. Prerequisite: enrollment in MBA program or consent of instructor.

599-3 to 6 Thesis. Prerequisite: enrollment in MBA program or consent of instructor.

Accountancy

There is no graduate program offered through the Department of Accountancy. Four-hundred-level courses in this department may be taken for graduate credit unless otherwise indicated in the course description.

405-3 Accounting for Public Organizations. Financial and managerial accounting concepts peculiar to the planning and administration of public and quasi-public organizations, such as governmental units, institutions, and charitable organizations. Includes the conventional budgetary-appropriation process, as well as some of the more recent accounting developments related to public decision making. Prerequisite: 222.

419-3 Accounting Information Systems. Accounting systems design and installation. The study of accounting information systems, including computer-oriented systems, with emphasis on the information and control functions of the management decision-making process. Prerequisite: 322, 341, Computer Science 212.

432-3 Advanced Tax. Study of income tax problems which arise from sole proprietorship, partnership, corporation, estate, and trust types of organization. Brief study of social security, federal and state estate tax and gift tax. Student does research in source materials in arriving at solutions of complicated problems. Prerequisite: 365.

442-3 Advanced Cost Accounting. Managerial decision making; profit planning and control through relevant costing, return on investment and transfer pricing, determination of cost behavior patterns, analysis of variances, capital budgeting, inventory models, probabilities, statistical methods, and operations research. Prerequisite: 341.

453-3 Advanced Accounting. Accounting principles and procedures relating to specialized topics, including partnership equity, installment and consignment sales, fiduciaries, international operations, branches, and business combinations. Prerequisite: 322.

475-3 Budgeting and Systems. A study of the application of mathematics, statistics, and the computer to specific budgetary and accounting problems. Includes concepts, methods, and tools used in accounting system for planning, coordinating, and controlling business activities. Prerequisite: 341, Computer Science 212.

477-3 Current Developments in Accounting Theory. Critical analysis of current developments in accounting theory, especially as reflected in the publications of major accounting associations. Prerequisite: 322.

486-3 Auditing. Standards, objectives, and procedures involved in examining and reporting on financial statements of business organizations. Prerequisite: 322, 341, 365.

495-3 Internship. Supervised work experience in professional accounting. Not for graduate credit. Prerequisite: outstanding record in accounting and recommendation of the departmental committee on internship. Mandatory Pass/Fail.

Administrative Sciences

There is no graduate program offered through the Department of Administrative Sciences. Four-hundred-level courses in this department may be taken for graduate credit unless otherwise indicated in the course description.

402-1 Strategies for Seeking Employment. The job placement process and the work environment from the viewpoint of the applicant. Emphasis on career planning, manpower analysis, placement and interviewing techniques with a stress on the transition from the academic community to the business and professional environment. Not offered for graduate credit. Prerequisite: senior standing or consent of department. Mandatory Pass/Fail.

431-3 Organizational Behavior II. The study of modern theories of complex organizations. Particular emphasis is placed on open-systems perspectives of administrative theory and the adaptation of the organization to a changing environment. Prerequisite: 341 and junior standing or consent of department. Elective Pass/Fail.

452-3 Management Science I. An introduction to mathematical model building in business and solution techniques commonly used to solve such models. Topical coverage includes introduction to models and decision theory, classical constrained optimization, linear programming and some extensions, inventory, maintenance, and replacement models. Prerequisite: 208, Mathematics 117 or 140 or equivalent, junior standing or consent of department.

453-3 Management Science II. A continuation of 452. Mathematical model building in business and solution techniques commonly used to solve such models. Topical coverage is primarily probabilistic models with an emphasis on inventories, queues, simulation, and decision theory. Prerequisite: 452, junior standing or consent of department.

456-3 Management Systems Applications. Investigation of selected systems and computer based methods for aiding management decision-making. Topics include systems analysis applications, simulation, and decision models. Prerequisite: 345, 352 or 452 and junior standing or consent of department. Elective Pass/Fail.

457-3 Advanced Management Systems. Survey of systems theory and models related to management and administration of a variety of organizations. Topics include systems analysis, diagnosis, and synthesis; hierarchies; information and control; and general systems theory. Prerequisite: 345, 352 or 452, 341, junior standing or consent of department. Elective Pass/Fail.

474-3 Management Responsibility in Society. Analysis of the cultural, social, political, economic, and immediate environment of the organization. Particular emphasis is given to the manner in which the manager adapts to and is influenced by his environment and its conflicting demands. Prerequisite: senior standing or consent of department. Elective Pass/Fail.

479-3 Problems in Business and Economics. (Same as Economics 479.) Application of economic theory and tools of analysis to practical business problems. Cost and demand functions, and forecasting are analyzed from a policy standpoint. Prerequisite: 208 or Economics 308, Economics 215, Marketing 304, and junior standing or consent of department. Elective Pass/Fail.

481-3 Administrative Policy. Development of organizational strategies and policies within environmental and resource limitations. Emphasis upon the application and integration of basic principles from all areas of business by case problem analysis, simulation exercises, and group participation. Not for graduate credit. Prerequisite: senior standing, 304, 318, Finance 320, Marketing 304, or equivalent. Elective Pass/Fail.

483-3 Advanced Production-Operations Management. Internal problems of managerial control of production including recent developments in theory and techniques; case material will be utilized for the development of analytical ability. Cost of field trips (\$5) must be incurred by the student. Prerequisite: 318, 352 or 452, junior standing or consent of department. Elective Pass/Fail.

485-3 Organizational Development. Analysis of problems in personnel management with emphasis on current trends and techniques. Case problems, special reports, and experiential approaches are used as a basis for examining ways of using an organization's human resources to best advantage. Prerequisite: 341, junior standing or consent of department. Elective Pass/Fail.

489-15 (3, 3, 3, 3, 3) Seminar in Administrative Sciences. Investigation of selected special or advanced topics in seminar format. Topics may include, but are not limited to: management responsibility in society, wage and salary administration, health services administration, data processing management, current issues in management, etc. (a) Personnel. (b) Organization. (c) Systems. (d) Production. (e) Management Science. May be taken singly. Prerequisite: consent of department chairman and instructor. Elective Pass/Fail.

491-1 to 6 Special Topics in Administration. Utilizes special faculty resources to enable individually, the exploration of an advanced area of study through research by means of data analysis and/or literature search. Prerequisite: consent of department chairman and instructor.

Finance

There is no graduate program offered through the Department of Finance. Four-hundred-level courses may be taken for graduate credit unless otherwise indicated in the course description.

421-3 Management of Business Finance. The principal problems of managing the financial operations of an enterprise. Emphasis upon analysis and solutions of problems pertaining to policy decisions. Prerequisite: 320.

422-3 Acquisitions, Divestments, and Recapitalization. A study of the issues involved in developing financial plans for external growth, divestment, and recapitalization. The case approach is emphasized in the course. Prerequisite: 320.

475-3 Forecasting and Budgeting. Methods and problems associated with the development of data used in planning financial activities. Prerequisite: 320.

476-3 Problems in Labor Law. Social, economic, and legal evaluations of recent labor problems, court decisions, and legislation. Concern is on long-run legislative impact on

manpower planning, dispute settlement, and utilization of employment resources. Elective Pass/Fail.

480-3 International Financial Management. Financial behavior of multinational firms. Emphasis on the modifications of conventional financial models to incorporate uniquely foreign variables. Prerequisite: 320 and Economics 315.

Marketing

There is no graduate program offered through the Department of Marketing. Four-hundred-level courses may be taken for graduate credit unless otherwise indicated in the course description.

401-3 Retail Management. Designed to present the basic principles in decision areas such as location, layout, organization, personnel, merchandise control, sales promotion, advertising, etc. Retail merchandising through a managerial perspective. Prerequisite: 304 and junior standing or higher, or consent of department.

438-3 Sales Management. Analysis of the management of the sales effort within the marketing system. Philosophies, concepts, and judgement criteria of the sales function in relationship to the total marketing program. Prerequisite: 304 and junior standing or higher, or consent of department.

439-3 Industrial Marketing. Analysis of decision criteria related to the marketing of industrial products. Emphasis on program development, formulation of a marketing mix, and the behavioral relationships in the modern industrial organization. Prerequisite: 304 and junior standing or higher, or consent of department.

452-3 Physical Distribution Management. Integration of physical distribution activities of the firm into a system. Transportation and location as elements of the system. Inventories and service as constraints upon the system. Planning, operation, organization, and management of the system. Prerequisite: 304 and junior standing or higher, or consent of department.

463-3 Advertising Management. Advertising from the viewpoint of business management. Develops an understanding of the role of advertising under various conditions. Problems of integrating advertising strategy into the firm's total marketing program. Prerequisite: 304 and junior standing or higher, or consent of department.

493-3 Marketing Policies. A comprehensive and integrative view of marketing policy formulation. Marketing decisions analyzed and discussed. Prerequisite: 329, 363, and 390 (Not more than one to be taken concurrently) and junior standing or higher, or consent of department.

495-3 Quantitative Techniques in Marketing. An introduction to and survey of mathematical tools of decision making in marketing situations. Application of these techniques to the analysis of marketing problems is emphasized. Prerequisite: 304 and Mathematics 117 or 140 and junior standing or higher, or consent of department.

499-1 to 6 (1 to 3, 1 to 3) Marketing Insights. Provides the student an opportunity to participate in an internship program, independent study, or seminar coinciding with his areas of interest. May be repeated for credit only when topics vary. Prerequisite: junior standing or higher and approval of the department chairman in the semester prior to enrollment.

Business Education

(SEE VOCATIONAL EDUCATION STUDIES)

Chemistry and Biochemistry

All laboratory courses in chemistry and biochemistry require the student to purchase either special notebooks or workbooks, costing within the range of \$1.00 to \$6.00.

411-3 Intermediate Inorganic Chemistry. Fundamentals of inorganic chemistry, covering bonding and structure, coordination compounds, and the chemistry of some familiar and less familiar elements. Three lectures per week. Prerequisite: 460 or 462a or concurrent enrollment in either.

412-2 Inorganic Preparations. Introduction to modern techniques of syntheses and compound characterization. Synthetic techniques include handling of air-sensitive materials, electrosyntheses, high-temperature reactions, and chemistry of non-aqueous solvents plus modern spectroscopic techniques for characterization. Prerequisite: 226, 347, and 349.

416-3 X-Ray Crystallography. (See Geology 416.) Prerequisite: 224 and 225, or 222b, one year of college physics and Mathematics 150.

431-4 Environmental Analytical Chemistry. Practical applications of common instrumental and wet methods to the determinations of chemical substances in common natural and commercial materials. Techniques will include titrimetry; quantitative transfer of liquids and solids; gas, thin-layer and ion-exchange chromatography; atomic absorption; flame photometry; ion selective electrode potentiometry; and spectrophotometry. The course is intended for senior-level and graduate students in disciplines other than chemistry who desire to know the practical aspects of laboratory measurements. The course is not applicable to a major in chemistry. One lecture, one laboratory-lecture, and two three-hour laboratories per week. Prerequisite: 224 and 225, or 222a,b or nine hours of Chemistry excluding general studies courses. Elective Pass/Fail.

434-4 Instrumental Analytical Chemistry. Theory and practice of modern instrumental measurements, including emission and absorption spectroscopic, electroanalytical, and chromatographic methods, and an introduction to applied electronics. Two lectures and two three-hour laboratories per week. Prerequisite: one semester of physical chemistry concurrently.

436-3 Analytical Separations and Analyses. A study of the analyses of complex materials, usually inorganic, with emphasis on separations, functional-group chemical analyses, and instrumental applications. Two lectures and one three-hour laboratory per week. Prerequisite: 434 or equivalent, or consent of instructor.

446-3 Qualitative Organic Analysis. A systematic study of the separation and identification of organic compounds. One lecture and six hours of laboratory per week. Prerequisite: 226 and either 348 and 349 or consent of instructor.

450-4 Survey of Biochemistry. Function and metabolism of amino acids, proteins, enzymes, carbohydrates, lipids, and nucleic acids. For preprofessional students, chemistry majors, biology majors, and others desiring a terminal one-semester survey of biochemistry. Three lectures and one laboratory per week. Prerequisite: 346 and 347 or 348 and 349.

451-6 (3, 3) Biochemistry. (a) Chemistry and function of amino acids, proteins, and enzymes; enzyme kinetics; chemistry, function and metabolism of carbohydrates; citric acid cycle; electron transport and oxidative phosphorylation. (b) Chemistry, function and metabolism of lipids; nitrogen metabolism; nucleic acid and protein biosynthesis; metabolic regulation. Three lectures per week. Must be taken in a,b sequence. Prerequisite: one year of organic chemistry.

455-4 Biochemistry Laboratory. Modern biochemical laboratory techniques for isolation, purification, and characterization of constituents of living cells and for investigations of pathways, kinetics, energetics, and regulatory mechanisms related to metabolism and enzymic activity. One lecture and eight hours of laboratory per week. Prerequisite: 451a and 226 or concurrent enrollment; graduate standing in the Department of Chemistry and Biochemistry or consent of the instructor.

460-4 Principles of Physical Chemistry. A one-semester course in physical chemistry designed especially for non-chemistry majors. Not for those who intend to be professional chemists. Three lectures and one three-hour laboratory per week. Prerequisite: 226 and Mathematics 150. Elective Pass/Fail.

462-6 (3, 3) Physical Chemistry. Three lectures per week. (a) Thermodynamics and its applications; chemical kinetics. Prerequisite: 226, Mathematics 251; concurrent enrollment in 463A; Mathematics 305 recommended. (b) Quantum mechanics of atoms and molecules; statistical thermodynamics. Prerequisite: 226, Mathematics 251; concurrent enrollment in 463B; Mathematics 305 and 406 recommended.

463-4 (2, 2) Physical Chemistry Laboratory. The sequence covers analysis of data, computational techniques, theory and practice of phenomenological kinetics and spectroscopy, and applications of thermodynamics. Two three-hour laboratories per week. (a) Prerequisite: 226, Mathematics 251; concurrent enrollment in 462a; Mathematics 305 recommended. (b) Prerequisite: 463a; concurrent enrollment in 462b; Mathematics 305 and 406 recommended. Must be taken in a,b sequence.

466-3 Molecular Structure and Spectroscopy. An introduction to the principles of spectroscopy with emphasis on ir., Raman, n.m.r. and e.s.r. spectroscopy. Three lectures per week. Prerequisite: 462a,b.

471-2 Industrial Chemistry. A survey of modern industrial chemistry and an introduction to chemical research processes. Two lectures per week. Prerequisite: 346 and 347 or 348 and 349.

472-6 (3, 3) X-Ray Crystallography. (See Engineering Mechanics and Materials 402.) Prerequisite: 462b and 463b.

489-1 to 3 Special Topics in Chemistry. Prerequisite: consent of instructor and chairman.

490-2 Chemical Literature. A description of the various sources of chemical information and the techniques for carrying out literature searches. Two lectures per week. Prerequisite: 224, 225, 346 and 347 or 348 and 349.

491-2 History of Chemistry. The evolution of chemistry from ancient times until 1920. Two lectures per week. Elective Pass/Fail.

496-1 to 8 Undergraduate Research (Honors). Introduction to independent research under the direction of a faculty member culminating in a written report. Not for graduate

credit. Prerequisite: a 3.0 grade point average, five semesters of chemistry laboratory including one semester of physical chemistry, consent of instructor and department chairman.

500-3 Structural Inorganic and Theoretical Organic Chemistry. An introduction to the above topics for beginning graduate students. Three lectures per week. Prerequisite: one year of undergraduate organic chemistry and 411 or an equivalent undergraduate course in advanced inorganic chemistry.

501-3 Kinetics and Thermodynamics. An introductory graduate course in solution kinetics and thermodynamics. Three lectures per week. Prerequisite: one year of undergraduate physical chemistry.

502-2 Molecular Orbital Theory. An introduction to molecular orbital theory and molecular orbital calculations.

503-4 Applied Spectroscopy and Electronics. Designed to provide a working knowledge of nuclear magnetic resonance, infrared, mass spectroscopy, ultraviolet-visible spectroscopy, electron spin resonance and other instrumental techniques of interest to all graduate students. A basic working knowledge of electronics will also be covered. Two lectures and two three-hour laboratories per week.

511-6 (3, 3) Advanced Inorganic Chemistry. (a) Principles of group theory and their application to molecular structure, ligand field theory and its application and magnetic properties of matter. (b) Energetics, kinetics, and mechanisms of inorganic systems. Prerequisite: one year of physical chemistry, 411 or satisfactory completion of 500.

519-2 to 9 (2 to 3 per semester) Advanced Topics in Inorganic Chemistry. Metal ions in biological processes and other selected topics to be announced by the department. Maximum credit nine semester hours. Prerequisite: consent of instructor.

531-3 Theory of Chemical Analysis. The phenomena utilized in analytical chemistry with emphasis on separations, organic reagents, and complex methods. Three lectures per week. Prerequisite: 436 or equivalent.

532-3 Analytical Chemistry Instrumentation. Theories of design and methods of interfacing components of instruments with applications to optimization of systems for laboratory per week. Prerequisite: 434.

534-3 Analytical Molecular Spectroscopy. Theory and practice of spectroscopic characterizations of organic and inorganic molecules, with emphasis on qualitative identification of molecules and on the relationships of spectroscopic parameters to electronic and molecular structures of molecules via e.s.r., n.m.r., and ir. Three lectures per week. Prerequisite: 434.

539-2 to 9 (2 to 3 per semester) Advanced Topics in Analytical Chemistry. Selected topics of interest to practicing analytical chemists such as microanalytical chemistry, functional-group chemical determinations, absorption spectroscopy, and electroanalytical chemistry. Maximum credit nine semester hours. Prerequisite: 434.

541-3 Advanced Organic Chemistry. An advanced course covering covalent bonding, structure, stereo-chemistry, reactions, reaction mechanisms, substituent effects, correlation of physical and chemical properties, and physical methods in organic chemistry. Three lectures per week.

542-3 Advanced Organic Chemistry. Continuation of 541. Three lectures per week. Prerequisite: 541.

549-2 to 9 (2 to 3 per semester) Advanced Topics in Organic Chemistry. Specialized topics in organic chemistry. The topic to be covered is announced by the department. Maximum credit nine semester hours. Prerequisite: 542.

556-7 (3, 4) Advanced Biochemistry. (a) Physical biochemistry-thermodynamics and kinetics of enzyme systems, physical characterization of biopolymers. (b) Protein structure, function and evolution; nucleic acid structure and function. Must be taken in a,b sequence. Prerequisite: 451a,b or equivalent and one semester of physical chemistry.

559-2 to 9 (2 to 3 per semester) Advanced Topics in Biochemistry. Topic to be announced by the department. Maximum credit nine semester hours. Prerequisite: 451b.

561-3 Chemical Thermodynamics. Basic methods and theories as applied to chemical problems. Three lectures per week. Prerequisite: one year of undergraduate physical chemistry or consent of instructor.

562-6 (3, 3) Quantum Chemistry Basic Principles. Three lectures per week. Prerequisite: one year of undergraduate physical chemistry or consent of instructor; Mathematics 406 recommended.

563-3 Chemical Dynamics. Experimental description and classical theories of the rate of chemical reactions; kinetic theory of non-uniform gases and its application to reacting systems; molecular beam techniques. Three lectures per week. Prerequisite: 462b or consent of instructor.

564-3 Statistical Thermodynamics. Elements of statistical mechanics and application to relatively simple systems. Three lectures per week. Prerequisite: 462b or consent of instructor.

569-2 to 9 (2 to 3 per semester) Advanced Topics in Physical Chemistry. Topic to be announced by the department. Maximum credit nine semester hours. Prerequisite: consent of instructor.

594-2 to 3 Special Readings in Chemistry. Assigned library work in any of the six fields

of chemistry with individual instruction by a staff member. (a) Analytical, (b) Biochemistry, (c) Inorganic, (d) Organic, (e) Physical, (f) History of Chemistry. Maximum credit three hours. Graded *S/U* only.

595-1 Advanced Seminar in Chemistry. Advanced level talks presented by graduate students. (a) Analytical, (b) Biochemistry, (c) Inorganic, (d) Organic, and (e) Physical Chemistry.

597-1 to 15 Professional Training. Experience in teaching of chemistry, instrument operation and special research projects. One hour required each semester in residence. Graded *S/U* only. Prerequisite: graduate standing.

598-1 to 50 (1 to 12 per semester) Research. Maximum credit 50 hours, except by permission of the student's graduate advisory committee. Graded *S/U* only. Prerequisite: consent of chairman.

599-1 to 6 Thesis. A maximum credit six hours. Prerequisite: consent of chairman.

600-1 to 30 (2 to 12 per semester) Dissertation—Doctoral. Requirement for Ph.D. degree, 24 hours. Maximum credit 30 hours, except by permission of the student's graduate advisory committee. Prerequisite: 598.

Cinema and Photography

Graduate work in the Department of Cinema and Photography is offered toward the Master of Fine Arts degree and the Master of Arts degree in public visual communications. Four-hundred-level courses in this department may be taken for graduate credit unless otherwise indicated in the course description.

Students provide photographic materials for all cinema and photography production courses, students supply their own film photographic paper, certain specialized chemicals, a fully adjustable 35mm or 120 roll film camera, and \$5 additional cost for laboratory materials for each production course. In motion picture production courses, students provide their own film, processing, recording materials, and editing supplies. In courses which involve analysis and screening of a number of films, a cost of \$10 per course for screenings will be required.

403-3 Studio Portraiture. History, theory and practice of formal studio portrait photography. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

405-3 Commercial/Industrial Photography. History, theory and practice of commercial and industrial photography. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

406-3 Advertising/Illustrative Photography. History, theory and practice of photography as used for advertising, illustration and editorial purposes. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 405 and consent of department. Elective Pass/Fail.

407-3 Publications Photography I. History, theory, and practice of photographic news reporting with emphasis on production and design of picture stories and essays. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and/or consent of department. Elective Pass/Fail.

408-3 Publications Photography II. History, theory and production of picture essays, including research, lay-out, captions and text. Black and white and color. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 407 and/or consent of department. Elective Pass/Fail.

415-3 Technical and Scientific Photography. History, theory and application of photographic research methods in science, technology and medicine. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

418-3 Documentary Photography. Survey of the history and theory of documentary still photography. Production of documentary photographic essays dealing in depth with an aspect of contemporary life. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and/or consent of department. Elective Pass/Fail.

420-3 Experimental Camera Techniques. Experimental approaches to the creation of photographic images in the camera. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

421-3 Experimental Darkroom Techniques. Experimental darkroom manipulations of

the straight camera image. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

422-3 Advanced Color Photography. Advanced study and production of color photographs with emphasis on experimental techniques using Dye Transfer, Kwik Proof and other forms of photo-mechanical reproduction. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

423-3 Reconstruction of Color. A study of the principle of color separation in photography as it relates to the processes of dye transfer, silkscreening, lithography, letter press, etching, and other reproduction processes. Students purchase texts and provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322. Elective Pass/Fail.

425-3 to 9 Studio Workshop. An intensive workshop focusing on current trends in photography as a fine art. Students provide photographic materials and chemicals. \$5 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

452-3 Film Planning and Scripting. Analysis of both scripted and non-scripted films. Script as a basis for production. Practice in preparing film plans, treatments, storyboards and scripts. Students purchase texts. Screening fee. Prerequisite: 355 and/or consent of department. Elective Pass/Fail.

454-3 Graphic/Animated Film Production. Practical course for visual expression related to the graphic film; symbology, composition, kinestasis, animation, typography, color and materials. Students purchase texts and materials. Screening fee. Prerequisite: 355 and 453. Elective Pass/Fail.

455-3 Film Production III. Advanced production by individuals or crews of 16mm sound films from pre-production through shooting. Intensive study of budgeting, production planning, scripting, casting, location and studio shooting techniques, equipment rental, lighting, and double system sound filming. Students provide film stock, processing and sound materials. Screening fee. Prerequisite: 356, 452 and consent of department. Elective Pass/Fail.

456-3 Film Production IV. Continuation of 455 through editing and post production to a first answer print. Intensive study of editing, sound mixing, laboratory procedures and distribution problems. Students provide expendable editing and sound materials and are responsible for laboratory costs. Screening fee. Prerequisite: 455 and consent of department. Elective Pass/Fail.

460-3 History of the Silent Narrative Film. Study of the theatrical film from its beginning to 1930. Screening fee. Students purchase texts. Elective Pass/Fail.

461-3 History of Sound Narrative Film: 1927-1945. Study of the theatrical sound film from its beginnings to 1945. Screening fee. Students purchase texts. Elective Pass/Fail.

462-3 History of the Documentary Film. Study of the development of the non-fiction film with emphasis on the documentary. Screening fee. Students purchase texts. Elective Pass/Fail.

463-3 History of the Experimental Film. Study of experimentation in cinema from the turn of the century, through the avant garde periods, to contemporary independent films. Screening fee. Students purchase texts. Elective Pass/Fail.

464-3 History of the Contemporary Film. Study of the major movements in theatrical motion pictures from neo-realism to the present. Screening fee. Students purchase texts. Elective Pass/Fail.

465-3 History of the Animated Film. Study of the history, techniques, and aesthetics of the graphic/animated film. Students purchase texts. Screening fee. Elective Pass/Fail.

468-3 Advanced Film Theory. Study of the film theories of Munsterberg, Eisenstein, Kuleshov, Pudovkin, Arnheim, Balaz, Bazin, Kracauer, Wollen, Perkins, Metz, and others. Films which pose particular theoretical problems as well as those which attempt to apply theory are studied. Screening fee. Students purchase texts. Prerequisite: 368. Elective Pass/Fail.

470-1 to 9 (1 to 9, 1 to 9) Advanced Topics. An advanced course concentrating on special topics in cinema or photography. Topics vary and will be announced in advance. (a) Advanced studies in cinema. (b) Advanced studies in photography. Not more than 6 semester hours may be counted toward the M.A. or M.S. degree. A screening fee or a \$5 charge for laboratory materials may be required. Prerequisite: consent of department.

491-1 to 9 Individual Study in Cinema or Photography. Research in history, theory or aesthetics. Usually taken 3, 3, 3. Prerequisite: consent of department. Elective Pass/Fail.

492-1 to 3 Practicum. Practical experience in the presentation of photographic theory and procedures. Not for graduate credit. Prerequisite: consent of department.

495-1 to 12 Internship in Cinema or Photography. Credit for internship with professional film or photographic units. Prerequisite: consent of department.

497-1 to 9 Projects in Cinema or Photography. Individual or crew projects in motion picture production or still photography. Usually taken 3, 3, 3. Additional laboratory materi-

als costing \$5 required for still photography projects. Prerequisite: consent of department. Elective Pass/Fail.

499-4 Senior Thesis. Preparation of a portfolio, film, research or critical paper under the supervision of a cinema and photography faculty member. Normally taken during last term in residence, the senior thesis is evaluated by the departmental faculty. A senior thesis is required of all majors with the following exception: a film completed in 456 may be submitted with approval of the cinema faculty to satisfy the requirements of a senior thesis. In this case, no course hour credit is given for 499. Senior thesis credit, 499, may not be applied to graduate work. The department will retain one copy of all theses. Additional laboratory materials costing \$5 required for still photography projects. Prerequisite: consent of department. Mandatory Pass/Fail.

591-1 to 6 Individual Study in Cinema and Photography. Supervised research or independent creative work, the area of study to be determined by the student in consultation with cinema and photography faculty. Prerequisite: consent of department.

595-1 to 4 (1, 1, 1, 1) MFA Seminar. A seminar for MFA degree candidates focusing on the artistic development of the participants. Prerequisite: admission to the MFA program in cinema and photography.

597-1 to 16 MFA Projects. Supervised independent creative work, the amount and exact nature of which is to be determined in consultation with the cinema and photography faculty. Prerequisite: admission to the MFA program and consent of department.

598-1 to 6 MFA Final Creative Project. Supervised independent creative work leading to the completion of the MFA creative project requirement. Registration for six hours of 598 is required of each MFA candidate. Prerequisite: admission to the MFA program and consent of the department.

Communications and Fine Arts

497-1 to 6 Special Interdisciplinary Study. Designed to offer and test new and experimental courses and series of courses within the College of Communications and Fine Arts. Prerequisite: consent of instructor.

Comprehensive Planning and Design, Division of Clothing and Textiles

There is no approved graduate program in clothing and textiles. Students enrolled in a major in home economics may continue to receive graduate credit for the courses listed below.

Students will be required to purchase additional supplies for some clothing and textiles courses.

405-3 Textile Testing. Exposure to and experience with methods used by retailers and manufacturers of textile items to measure performance and maintain quality. Standards, sampling, and replication requirements and interpretation of results.

414-4 Experimental Custom Apparel Designing. Development of apparel to meet esthetic, structural, and functional needs; problem-solving for exceptional proportions, rehabilitation, activity, performing arts, new technology, materials, environment. Some patterns originated in 414 may be tailored following semester in 428. Prerequisite: 314 or consent of chairperson.

416-3 Mass-Market Apparel Designing. Design of a line to specifications; drafting; toiles; mass-production costs; work flow; uses of industrial equipment. Field trips. Prerequisite: 314 or equivalent.

428-3 Custom Tailoring. Individualizing, fitting, and contouring of male or female garment for customer from commercial pattern or from pattern originated in 414 preceding semester. Organization of work and time. Prerequisite: 328, or 414, or consent of chairperson.

442-3 Clothing Economics. Factors of production, distribution, and consumption influencing clothing industry; management of these factors in clothing related businesses; place of clothing industry in national and international markets. Field trip. Prerequisite: GSB 211 or Economics 214.

460-3 Historic Clothing: Western Cultures. Development of clothing in Western Civilization to the present time. Consideration of social, economic and esthetic factors and technical innovations influencing clothing. Offered alternate years. Prerequisite: junior standing.

462-3 Historic Clothing: Non-Western Cultures. Traditional dress in non-western cultures. Esthetics, symbolism, and uses of costume in the culture; effect of clothing on economy.

Cultures studied may vary with each offering. Offered alternate years. Prerequisite: junior standing.

482-1 to 6 (1 to 3 per semester) Workshop. Discussion and analysis of current topics in clothing and textiles. Emphasis stated in announcement. Maximum of three hours per topic. Prerequisite: eight hours of clothing and textiles.

484-1 to 3 Seminar. Topics considered at level of design room, research laboratory, mill, store, and consumer. Offered alternate years. Prerequisite: consent of chairperson.

490-1 to 4 Readings. Supervised study of clothing and textiles literature in area of special interest. Prerequisite: senior standing or consent of chairperson.

555-3 Foundations of Fashion. Anthropological approaches to fashion and socio-economic and psychological forces as determinants of fashion in modern times. Usually offered summers. Prerequisite: 351 or consent of chairperson.

573-2 College Teaching of Clothing and Textiles. Central ideas, objectives, and current practices. For preparation of college teachers.

580-3 Research Methods. Study of methods of research in clothing and textiles. Critique of published literature and theses. Development of research design. Prerequisite: statistics or concurrent enrollment.

584-3 Seminar. Individual preparation and presentation of topics related to clothing or textiles. Offered alternate years. Prerequisite: consent of chairperson.

592-1 to 6 Special Problems. Independent study for qualified students. Maximum of three hours counted toward master's degree. Prerequisite: consent of chairman.

597-1 to 3 Pilot Studies. Experimental techniques in apparel design, textile technology, or retailing. Prerequisite: consent of chairman.

599-1 to 6 Thesis. Minimum of three hours to be counted toward a master's degree.

Design

There is no approved graduate program in design. Four-hundred level courses may be taken for graduate credit unless otherwise indicated in the course description.

Students will be expected to purchase their own materials in some of the design courses.

400-3 Portfolio and Resume. An investigation and implementation of the planning, production, and management of interface information such as resume, portfolio, and presentation of self. Not for graduate credit. Prerequisite: 200, 201, 202, 250, 252, 254 plus 9 hours elective on 300 level or consent of chairman.

401-3 Problem Solving in Applied Design. A design team approach solving real problems utilizing the methods and techniques acquired in the design program. Not for graduate credit.

402-3 Advanced Human Engineering. An extension in depth of 252. Subjects will include selection of design criteria, simulation techniques, and application of theory to selected problem areas. Not for graduate credit. Prerequisite: 252 and 9 hours of 300 level core courses.

403-4 Advanced Systems Theory. An interdisciplinary team approach to the analysis of complex problems using systems theory as the analytical tool. Students from the four areas of design specialty; i.e., visual communication, computer aided design, urban planning, and product design will coordinate their efforts to solve selected problems utilizing their existing skills. Not for graduate credit. Prerequisite: 302.

405-3 Environmental Graphics. An introduction to the theory and practice of designing meaningful symbols for the public environment, including spatial perception and typography as related to signage systems, imagery, symbols, color and light. Not for graduate credit.

406-3 Exhibition Design. Techniques of exhibition design from two dimensional linear displays to freestanding traveling units. Not for graduate credit.

412-4 Practicum in Product Design. Advanced comprehensive product design projects developed into production prototypes. Not for graduate credit.

413-3 Professional Practice in Product Design. The study of designer/client relationships, business practices, design office procedures, and professional ethics. Not for graduate credit.

422-3 Visual Communication III. Principles of visual message making and investigation of symbols as they are used in communication. Study includes the development of contemporary communication techniques including photographs, topography, color, and illustration as well as learning to identify techniques and processes of communication. Not for graduate credit. Prerequisite: 372.

423-3 Multi-Media Exploration. Experimentation into various forms of electronic and sensory media as a form of visual expression, documentation, and research. Film making, animation techniques, 35mm slide format and VTR will be explored. Not for graduate credit. Prerequisite: 372 and 373.

432-3 Landscape Architecture. Study of the principles of urban and regional landscape architecture and an introduction to the elements of landscape and architecture. Site analysis and site planning are studied in relation to structures and large scale developments. Technical aspects of site development are stressed. Not for graduate credit.

433-4 Urban Design III. Continuation of urban design II with emphasis on client interaction. Projects dealing with community groups and advocacy planning needs will be dealt with where appropriate. Not for graduate credit. Prerequisite: 381.

442-4 Principles of Computer Graphics. Contemporary methods, including basic mathematical techniques, for the representation, manipulation, and display of two- and three-dimensional objects. Not for graduate credit. Prerequisite: 392 and Computer Science 202.

450-1 to 6 Internship. Supervised work experience related to student's academic program and career objectives. Not repeatable for credit. Not for graduate credit. Prerequisite: consent of chairperson. Mandatory Pass/Fail.

462-4 Research in Product Design. Not for graduate credit. Prerequisite: consent of chairman, declared specialty in product design.

463-4 Products for Special Populations. Products for special subset groups within greater population norms. May be of cross-cultural and interdisciplinary implementation. Not for graduate credit.

464-4 Environmentally-Integrated Products. Development of products integral to comprehensive environmental planning. Not for graduate credit.

465-2 to 4 Independent Study in Product Design. Creative project developed by student and faculty sponsor and approved by chairman. Not for graduate credit.

472-3 Visual Communication IV. Advanced problems in visual communication, with emphasis on creative research and experimental solutions. The course will allow opportunity to explore various approaches to visual communication problems: combinations of two and three dimensions, film, etc. Not for graduate credit. Prerequisite: 422.

485-3 Special Projects in Landscape Architecture. Special projects framework for advanced undergraduate to do research on a tutorial basis. Not for graduate credit.

492-4 Computer Aided Design. Advanced exploration of computers and the design process. Emphasizes topics in structural, architectural, and planning areas. Not for graduate credit. Prerequisite: 392 and 442.

493-4 Advanced Topics in Computer Aided Design. Applications of computer aided design to design specialties. Course emphasizes interdisciplinary topics. Prerequisite: 442 and 492.

495-3 to 9 Seminar in Design. Special projects in design developed with adjunct and visiting professors and staff. Not for graduate credit.

499-3 to 9 Senior Honors Research. Research projects for senior honors students developed by the student and faculty sponsor and approved by department chairman. Not for graduate credit. Prerequisite: consent of instructor.

Interior Design

There is no approved graduate program in interior design. Students currently enrolled in the concentration in family economics and management of the home economics program may continue to receive graduate credit for the courses listed below.

418-1 to 6 Workshop in Interior Design. Current problems facing the professional interior designer. Discussion, reports, lectures, design solution presentations, and other methods of analyzing and working on design problems. Prerequisite: 28 hours in interior design or consent of chairman.

470-3 Interior Design Seminar. Development of systematic approach involving systems analysis, human factors engineering, environmental variables. Prerequisite: eight hours in interior design or consent of chairman.

481-1 to 4 Readings. Selected readings in the area of individual interests in design-related research. Prerequisite: 28 hours in interior design or consent of chairman.

491-4 Advanced Interior Design. Systematic analysis of human factors as determinants of design solutions for large-scale interiors. Lecture and laboratory. Prerequisite: 391c, 394, or consent of chairman.

492-1 to 5 Special Problems. Directed independent work and study in areas determined by the student's interests and needs. Lecture and laboratory. Prerequisite: 18 hours in interior design or consent of chairman.

Computer Science

401-3 Computer Organization. Computer main frame architecture; control unit, arithmetic/logic unit, memory, other features. Input/output devices, mass storage devices, channels, and communications equipment. Computer systems configurations design and comparison. Prerequisite: 306 and 342.

411-3 Programming Languages. Study of the significant features of existing programming languages with particular emphasis on the underlying concepts abstracted from these

languages. Includes formal specification of syntax and semantics, representation and evaluation of simple statements, grouping of statements, scopes and storage allocation, procedures. Prerequisite: 304 or concurrent enrollment.

414-3 Introduction to Operating Systems. Operating systems: batch, multiprogramming, multiprocessing, and time-sharing systems. Specific treatment of one operating system with respect to scheduling, program initiation, memory allocation, CPU allocation, and input/output control. Prerequisite: 306.

430-3 File Organization. Organization of records and blocks. Design of files, file system, and access methods. File maintenance, external sorting, and searching. Techniques for creating and using hashed files. Introduction to the concepts of data base systems. Prerequisite: 306.

435-3 Information Systems Analysis. An exercise in the analysis, design, implementation, testing, and maintenance of a large modular application system. Team production of a system is the focal point for the course. Topics include the system life cycle, modular design, human interfaces, external system specification, program design languages, and improved programming techniques. Prerequisite: 306.

438-3 Introduction to Telecommunications. Time dependent computational processes. Hardware and software considerations. Dialogue design. System design and implementation. Prerequisite: 306.

445-3 Boolean Algebra and Logical Design. (Same as Mathematics 445.) Boolean algebra with applications to computer logic and circuit design. Simplification algorithms. Sequential circuits and sequential machines. Introduction to error-correcting codes. Prerequisite: 342 or Mathematics 319.

449-3 Combinatorics and Graph Theory. (Same as Mathematics 449.) An introduction to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion, Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 342.

451-3 Introduction to the Theory of Computing. (Same as Mathematics 451.) The fundamental concepts of the theory of computation including finite state acceptors, formal grammars, turing machines and recursive functions. The relationship between grammars and machines with emphasis on regular expressions and context-free languages. Prerequisite: 445.

464-6 (3, 3) Numerical Analysis. (Same as Mathematics 475.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 202, Mathematics 250, and Mathematics 221.

470-3 Computer Simulation Techniques. Applications and rationale. Design and analysis of discrete simulation models. Generation of random sequences and stochastic variates. Simulation languages. Prerequisite: 202 and either Mathematics 280 or 480 or 483 or consent of instructor.

471-3 Introduction to Optimization Techniques. (Same as Mathematics 471.) Nature of optimization problems. General and special purpose methods of optimization, such as linear programming, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 202, Mathematics 221, and Mathematics 250.

472-3 Linear Programming. (Same as Mathematics 472.) Nature and purpose of the model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimality analysis. Prerequisite: 202 and either Mathematics 139 or 221.

485-3 Computer Graphics. Study of the devices and techniques for the use of computers in generating graphical displays. Includes display devices, display processing, transformation systems, interactive graphics, 3-deminsional graphics, graphics system design and configuration, low and high level graphics languages, and applications. Prerequisite: 306 and Mathematics 111 or equivalent.

490-1 to 6 (1 to 3 per semester) Readings. Supervised readings in selected subjects. Prerequisite: consent of instructor and department.

491-1 to 4 Special Topics. Selected advanced topics from the various fields of computer science. Prerequisite: consent of instructor.

492-1 to 6 (1 to 3 per semester) Special Problems. Individual projects involving independent work. Prerequisite: consent of department.

493-1 to 4 Seminar. Supervised study. Preparation and presentation of reports. Prerequisite: consent of instructor.

501-3 Advanced Computer Organization. Microprogrammable computer systems. Modular computer design concepts. Microprocessors. Design concepts of stack and parallel computers. Overlap and pipeline processing. Other current topics in computer organization. Prerequisite: 401 and 445.

514-3 Systems Programming. Design and analysis of multiprogramming, multiprocess-

ing, and time-sharing operating systems. Implementation of a simple, complete operating system. Current topics in systems programming. Prerequisite: 414.

516-3 Compiler Construction. Design of a simple, complete compiler, including lexical analysis, syntactical analysis, and code generation. Advanced topics selected from mixed arithmetic, procedures and parameters, optimization, compiler writing systems. Prerequisite: 306 and 411.

531-3 Text Processing and Data Base Systems. Machine indexing, classification, and abstracting techniques. Automatic text analysis. Data base systems. Prerequisite: 430.

536-3 Artificial Intelligence and Heuristic Programming. Heuristic methods including applications to problem-solving and game playing. Theorem proving: resolution principle, strategies, achievements. Selected topics from learning and adaptive systems, self-organizing systems, simulation of natural systems, pattern recognition, question-answering. Prerequisite: 304 or consent of instructor.

553-3 Formal Languages and Automata. (Same as Mathematics 528.) Algebraic analysis of automata with emphasis on semigroup and decomposition theory. Probabilistic automata. Grammars including regular, context-free, context-sensitive and type zero. Normal forms, restricted grammars. Closure properties. The relation between grammars and automata. Basic decision problems. Prerequisite: 451.

555-3 Theory of Computability. (Same as Mathematics 529.) Turing machines and recursive functions. Church's thesis. Solvable and unsolvable problems. Introduction to complexity theory including the classes P and NP. Polynomial time approximation algorithms for NP-complete problems. Prerequisite: 451.

564-1 to 9 Advanced Numerical Analysis. (Same as Mathematics 592.) Selected topics chosen from such areas of numerical analysis as approximation theory, numerical solution of initial value problems, numerical solution of boundary value problems, numerical linear algebra, numerical methods of optimization, functional analytic methods. Prerequisite: consent of instructor.

590-1 to 9 Readings. Supervised readings in selected subjects. Graded *S/U* only. Prerequisite: consent of instructor and department.

591-1 to 9 (1 to 3 per topic) Special Topics. Selected advanced topics from the various fields of computer science are investigated. Graded *S/U* only. Prerequisite: consent of department.

592-1 to 6 (1 to 3 per semester) Special Problems. Individual projects involving independent work. Graded *S/U* only. Prerequisite: consent of department.

593-1 to 4 Seminar. Preparation and presentation of reports. Graded *S/U* only. Prerequisite: consent of instructor.

599-1 to 5 Thesis. Minimum of three hours to be counted toward a master's degree. Prerequisite: consent of department.

Curriculum, Instruction, and Media

400-2 Simulation and Gaming. The role of simulation and gaming in instruction, the availability of commercial games and simulation devices, and the theoretical backgrounds used in constructing teacher-made games are to be examined.

401-1 to 3 Problems in Public School Reading. Requires attendance at all sessions of a reading conference; preparation of a paper showing practical applications of theory to the student's own teaching situation.

402-3 Education for Disadvantaged and Culturally Different Students. The student examines the characteristics of behavior and learning patterns of culturally different and socioeconomically disadvantaged children. Content also includes school adjustment, experiential background, self-concept, language development, and appropriate teacher behaviors and teaching strategies.

407-3 to 9 (3 per topic) Diagnostic and Corrective Techniques for the Classroom Teacher. A presentation of diagnostic and remediation techniques with emphasis placed on appropriate methods and materials to be used in classrooms in the areas of (c) Language Arts, (e) Mathematics, and (f) Reading. Prerequisite: specialist methods course in field selected by student and/or consent of instructor.

409-3 Creative Teaching. To assist pre- and in-service teachers in acquiring methods and materials that will improve instruction in the public school classroom, with special attention to the characteristics and needs of students. Prerequisite: Education 302.

410-2 Creative Writing in the Public School. Techniques of encouraging creative writings in the schools.

412-3 to 15 (3 per topic) Improvement of Instruction in Early Childhood Education (Preschool-Grade 3). Examines recent findings, current practices, and materials used in early childhood education in the fields of (c) Language Arts, (d) Science, (e) Mathematics, (f) Reading, and (g) Social Studies. Prerequisite: specialized methods course for the field of study selected by the student.

415-3 Improvement of Instruction in Middle School Mathematics (Grades 4-8). Examines recent findings, current practices, and materials in the middle school setting. Prerequisite: 315 or consent of instructor.

418-2 History and Philosophy of Early Childhood Education. A survey of the history and philosophies of early childhood education with its implication for current program practices. Student's analysis of personal philosophy of early childhood education. Prerequisite: 316, 318, senior or graduate standing.

419-3 Parent Involvement in Education. Materials, techniques, and resources suitable for use by teachers in helping parents and teachers to understand how they can help each other in the partnership responsibilities of the education of children from a variety of backgrounds. Prerequisite: 317, student teaching, or consent of instructor.

420-3 Teaching the Adult Functional Illiterate. The emphasis in the course is on understanding the problems of the individual whose literacy level does not permit full participation in the economic, social, and civic opportunity available to the majority of citizens. Prerequisite: permission of instructor.

423-3 Teaching Elementary School English Language Arts. Oral and written communication processes with emphasis on the structure and process of the English language arts in the elementary school. Specific attention to the fundamentals of speaking English, writing, spelling, and listening. Study of learning materials, specialized equipment and resources.

424-3 Teaching Elementary School Social Studies. Emphasis on the structure and process of teaching social studies in the elementary school setting. Specific attention to the fundamentals of developing social studies objectives, planning units, developing a general teaching model, organizing the curriculum, and evaluating behavioral change. Study of learning materials, specialized equipment, and resources.

426-3 An Introduction to Teaching Elementary School Science. Content and methods of elementary school sciences, grades K-8. Emphasis on the materials and strategies for using both traditional and modern techniques of science education. One or more field trips.

427-4 Science Process and Concepts for Teachers of Grades N-8. (Same as Botany 462). Specifically designed to develop those cognitive processes and concepts needed by elementary school teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

435-3 Literature for Children. Studies types of literature; analysis of literary qualities; selection and presentation of books and other media for children; and, integration of literature in preschool, elementary and library settings.

436-2 Library Research Methods. Introduction to the use of library materials for graduate research. The use of bibliographies and reference works in various subjects. Students will consult sources in their own disciplines. Not open to students in the educational media program.

437-3 Educational Media in Training Programs in Business and Industry. The utilization of visual, audio, electronic, display, and print media in industrial and business training programs. Includes experiences in using sources, selecting and evaluating media, the operation and maintenance of media hardware and the use of multi-media. Not open to students pursuing a graduate major in educational media.

438-3 Introduction to Technical Services. Organization of library materials. Emphasis on cataloging and classification. Includes acquisition, processing, and circulation of materials. The Dewey Decimal classification system and Sears list of subject headings are stressed. Laboratory assignments.

439-3 Basic Reference Sources. Introduction to the principles and methods of reference work. Concentration on the study and examination of the tools which form the basic reference collection of the school library.

440-3 Selection of Media. Evaluation of print and non-print media; resources and services; competencies for efficient purchasing and selecting of media.

442-4 Administration of the School Media Program. Functions and management of elementary and secondary school library media programs with emphasis on services, personnel, financial aspects, facilities, and evaluation. Current issues and trends as reflected in the literature. Field trips to school library media centers.

445-3 Media for Young People. The selection and use of books and other educational media for students in the junior high and senior high school.

450-3 Photography for Teachers. Photography as a tool of communication in the modern school. Techniques of camera handling, visually planning a story, macro-photography, and color slides.

451-3 Photographic Preparation of Educational Media. Techniques of photography used in producing prints, overhead transparencies, daylight slides, high contrast materials, picture stories, filmstrips, and other photographic instructional materials. Prerequisite: 450 or consent of instructor.

453-3 Local Production of Educational Media. The study of the various processes and techniques used by classroom teachers in the production of locally-made nonphotographic instructional material.

- 455-3 Organization and Production of Media for Self-Instruction.** The study of various programming techniques and the procedures used in producing, designing, and evaluating materials used for self-instructional purposes. Includes organizing a teaching segment and producing the needed materials to create a self-instructional package.
- 458-3 Classroom Teaching with Television.** Classroom utilization of open and closed circuit television. Emphasis is placed on the changed role of the classroom teacher who uses television. Evaluation of programming, technicalities of ETV, and definition of responsibilities are included. Demonstration and a tour of production facilities are provided.
- 462-3 Middle and Junior High School Programs.** Focuses on the development of middle and junior high school curriculum, and the identification of instructional activities which relate to the pre and early adolescent student. It is anticipated that the student will be able to plan and develop teaching units and evaluate procedures complementary to this portion of the school structure.
- 464-2 Student Activities.** Analysis of extra-class activities and programs in public schools with a focus on the status, trends, organization, administration, and problems.
- 468-3 Science Methods for Junior and Senior High Schools.** An analysis of the skills and strategies needed for effective science instruction in the secondary school. The acquisition of teaching skills and the development of instructional materials. Classroom observation and one or more field trips may be required.
- 469-2 Teaching Social Studies in the Secondary School.** Emphasis is placed upon instructional strategies and curricular designs in social studies at the junior and senior high school levels.
- 496-2 to 6 (2 to 4 per semester) Field Study Abroad.** Orientation and study before travel, readings, reports, and planned travel. Includes visits to cultural and educational institutions. Maximum credit hours in any term is 4.
- 498-1 to 15 (1 to 3 per topic) Workshops in Education.** Critical evaluation of innovative programs and practices. Acquaints teachers within a single school system or in a closely associated cluster of school systems with the philosophical and psychological considerations and methods of implementation of new programs and practices in each of the following areas: (a) Curriculum, (b) Supervision for Instructional Improvement, (c) Language Arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social Studies, (h) Early Childhood Education, (i) Elementary Education, (j) The Middle School, (k) Secondary Education, (l) Disadvantaged Children and Youth, (m) Instruction, (n) Educational Media, and (o) Environmental Education, (p) Children's Literature. Prerequisite: consent of instructor. Maximum of six hours toward a master's degree.
- 500-3 Research Methods in Education.** Introduction to educational research and designs, writing techniques, and evaluative processes in education.
- 501-3 Organization and Administration of Reading Programs.** For reading specialists, consultants, supervisors, and instructional leaders. Recent trends in organization, administration of reading programs, K-community college; materials, equipment, budget for special programs; study of roles of various personnel; and in-service preparation programs. Specific problems of class members are studied. Prerequisite: 512 or 561.
- 502-3 Education of Disadvantaged Students: Research and Teaching.** Deals with research in selected areas within the total context of urban and rural disadvantaged children. Emphasis is placed on such issues as problems of administration, teaching, and curriculum problems, research in the social sciences, and subject matter areas as each of these topics is related to school, community, and students.
- 504-3 Systematic Approaches to Instruction.** Gives graduate students an opportunity to investigate, discuss, and apply systematic approaches to instruction. Special emphasis is given to that element of the instructional system which allows for the integration of instructional media into the process.
- 508-3 Supervision of Professional Education Experiences.** The role and responsibility of the cooperating public school teacher in the supervision of teacher education students, involved in various field experiences. Attention is given to the joint responsibilities of the university and the public school in this cooperative venture. For present and prospective teachers who wish to effectively deal with students in the various professional education experiences.
- 509-3 Foundations of Environmental Education.** Designed specifically to provide teachers, administrators, and curriculum specialists with the knowledge and skills necessary to implement environmental education strategies in both elementary and middle schools. Includes work in ecological foundations, programs currently in use, unit designs, methods, and research. One or two field trips may be required.
- 511-3 Seminar in Psychology of Elementary School Subjects.** Psychological principles of learning theories as applied to the mastery of materials used in elementary and early childhood education school subjects. Emphasis is placed on implications of theories of learning for curriculum development and instruction.
- 512-3 Reading in the Elementary School.** First course in the reading sequence. Survey of the reading process. Introduction to factors affecting the reading process, the common core of skills, teaching strategies, materials, and research.

513-3 Kindergarten-Primary Reading. A survey of problems and methodology in the developmental reading program for the primary grades. Emphasis placed upon prevention of reading difficulties.

515-3 Diagnosis and Correction of Mathematics Disabilities. Causes of mathematical difficulties, observations and instrument procedures, experience in preparing materials for diagnosing and for corrective purposes. Prerequisite: 407E.

517-3 Early Childhood Programs: Organization and Administration. Presents an overview of the organization and administration of programs for children ages three to eight with experiences in planning for operating and administering such programs. Prerequisite: 316, 518, or consent of instructor.

518-3 Early Childhood Education. A survey of current problems and practices in early childhood education for children from three to eight years of age, with emphasis on reading in current research literature. Prerequisite: consent of the instructor.

521-8 (4, 4) Diagnosis and Correction of Reading Disabilities. Causes of reading difficulties, observation and interview procedures; standardized tests, instruments, and informal inventories; analysis techniques; experiences in preparing materials for corrective purposes. Each student diagnoses and treats a reading disability case under supervision. Prerequisite: 512 or 561 and consent of instructor.

522-3 Teaching Reading Skills to College Students. Designed to discuss, develop, and demonstrate techniques of teaching reading skills to college students. A very important aspect of this course is practical tutoring sections. Prerequisite: permission of instructor.

523-3 Language Arts in the Elementary School. The practical bearing of investigation and theory on the improvement of current practices in the teaching of the language arts other than reading. Attention given to evaluation of teaching materials in these areas. Prerequisite: 423.

524-3 Teaching the Social Studies in the Elementary School. A study of theory and practices of teaching and developing programs in elementary school social studies. Particular attention to be given to trends and issues in social studies. Various social studies models will be examined and evaluated for practical use. Students must demonstrate behaviorally the competencies and skills related to successful performance in the teaching of social studies.

526-3 Problems in Elementary School Science Education. Emphasis upon identifying problems and trends within elementary school science education and planning for research in this field. Prerequisite: 426.

531-3 The Elementary School Curriculum. An introductory course in curriculum designed to assist teachers and administrators in making operational decisions in elementary education which are based on knowledge of foundations of elementary education, organization of learning experiences, research in specialized areas, materials and methods, instructional programming and evaluation. Students are required to exhibit curriculum competencies through the creation of products and through demonstration of skill.

532-3 Research in Elementary Education. Critical analysis of the most significant research studies in foundation, organization, learning, instruction, curriculum, evaluation, and specialty areas in elementary education.

533-3 Instructional Leadership in Elementary Education. A study of research and related literature concerning various instructional leadership styles and behaviors. Major attention is given to such behaviors as they apply to the local school and the individual classroom situation.

534-3 Organization of the Elementary School. An analysis of types of elementary school organizations with special attention to influence of school organization upon the educational program. Application of research findings to selection and use of materials of instruction. Special consideration to classroom teacher's professional problems.

538-3 Organization of the Nonbook Collection. The application of standard library techniques to the organization, storage, distribution, and physical processing of all types of nonbook materials with emphasis on cataloging and classification. Prerequisite: 438.

539-3 Reference Services of the School Media Center. Designed to round out the student's preparation for reference work in the school media center. The techniques of developing reference service with attention to the needs of special user groups. Preparation of bibliographies on subjects of current topical interest and a term project on a specific issue or problem. Prerequisite: 439.

540-2 Mass Communications in Education. The use of mass media in the classroom. Includes radio, television, comic books, newspapers, magazines, and motion pictures.

542-3 Administration of an Educational Media Center. Designed to further the training of specialists in the supervision and administration of an integrated audiovisual and library program at the district level. It is based on the concept of a single agency in the school system which encompasses all forms of educational media. Prerequisite: 442 or consent of instructor.

544-3 Administration of the Community College Media Program. Includes decision-making, personnel, budget, public relations, building programs and plans, selection of instructional equipment and furniture, and long-range planning and development. Theories and practices in the administration of the community college media center. Field trips are planned.

545-3 Selection for the Community College Media Program. The selection of written and recorded materials of all kinds for the community college library. Deals also with the accessibility of materials, information retrieval, and the preparation of bibliographies. Prerequisite: 440.

546-3 The Library of Congress Classification Scheme. The study of the Library of Congress classification scheme as it is utilized in community college libraries. Prerequisite: 438.

548-5 Production and Utilization of Media. The study of production, utilization, selection and evaluation of print and audiovisual media. Emphasis will also be given to techniques for producing and designing media to fit the needs of a specific teaching problem.

549-2 Designing Multi-Image Learning Materials. The acquisition of skills in designing, producing, and showing multi-image learning materials. Students should possess photographic skills and a 35 mm camera.

550-3 History of Media. The evolution of print from cunieform tablets to the mass printing process. The invention of photography, motion pictures, sound recordings, radio, and television. The change in storage of information from clay tablets to microfiche.

551-4 Survey of Research and Developments in Educational Media. Survey of research, research techniques, needed research, and new developments and programs in educational media. Investigation of new curriculum and organizational developments in the public schools as related to educational media.

553-2 Instructional Design. The primary purpose of the course is to give the students experience in designing and producing materials for real instructional settings in cooperation with professional instructional staff members. Advanced graphic production methods and developing evaluation skills are also included. Prerequisite: 450, 453 or consent of the instructor.

554-3 Integration of Educational Media. The utilization and integration of print and non-print materials in the teaching approach. Structured for media directors and administrators and instructional designers. The increasing role of technological advances in education is stressed as they relate to learning theory and curriculum development.

555-3 Visual Learning. Learning from pictures in the classroom, the design of still and motion pictures, pictures used in teaching perception, and the place of pictures in advertising and communication.

560-3 Instructional Television. The field of educational broadcasting is explored, with special emphasis on public and school television. History and philosophy are included. Problems of programming and their effect on society are studied. The relationship between broadcasting and the viewing public is investigated, and the responsibility of each is established. Emphasis is also placed upon principles of ITV administration and inservice training.

561-3 Reading in the Secondary School. For junior and senior high school teachers who desire a foundation in reading. Emphasis placed on the basic skills appraisal of reading abilities, materials of instruction, and methods of teaching reading in the content areas.

569-3 Principles and Trends in Secondary School Social Studies Education. An evaluation and study of social studies trends and practices as they are related to curriculum, organization, and instruction at the junior and senior high school and community college levels.

571-3 Secondary School Curriculum. An introductory course designed to explore the nature and development of the curriculum at the secondary school level. Historical perspective and foundations of curriculum are examined. Functional applications to the public secondary schools are emphasized.

573-3 Perspectives on the Future and Its Schools. Deals with the future development of education and social trends which will influence that development. Emphasis is placed upon alternative models of education and their social bases.

580-3 Current Developments in Major Subject Areas in Secondary Schools. Trends, issues, problems in the subject areas of the secondary school, related to the student, program, school organization, staff, material and media, the school building, and the process of innovation and change.

582-3 Research in Secondary Education. Critical analysis of the most significant research studies in the foundations, organization, learning, instruction, curriculum, evaluation, and certain specialty areas in secondary education.

585-3 to 15 (3 per topic) Seminars in Education. A series of seminars for specialized study of significant aspects of educational problems, practices, issues, trends, research, policies, and programs. Areas of study are: (a) Curriculum, (b) Supervision for Instructional Improvement, (c) Language Arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social Studies, (h) Early Childhood Education, (i) Elementary Education, (j) The Middle School, (k) Secondary Education, (l) Disadvantaged Children and Youth, (m) Instruction, (n) Educational Media, and (o) Environmental Education, (p) Children's Literature. Maximum of six hours toward a master's degree. Prerequisite: consent of instructor.

586-3 Curriculum Design and Development. Deals with organizing the staff for maximum participation in curricular decision-making, determining content scope and sequence, creating and producing curriculum materials, and relating these materials to educational programs at various levels.

587-3 Curriculum Implementation and Evaluation. Attention is given to preparing the curriculum specialist to use appropriate techniques and skills to put curriculum programs into practice and to assess the effectiveness of such programs in terms of a wide range of variables which indicate success or need for curricular modification.

590-1 to 15 (1 to 3 per topic) Independent Readings. Directed readings in literature and research in one of the following areas: (a) Curriculum, (b) Supervision for Instructional Improvement, (c) Language Arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social Studies, (h) Early Childhood Education, (i) Elementary Education, (j) The Middle School, (k) Secondary Education, (l) Disadvantaged Children and Youth, (m) Instruction, (n) Educational Media, and (o) Environmental Education, (p) Children's Literature. Maximum of four hours toward a master's degree. Prerequisite: consent of instructor.

593-1 to 15 (1 to 3 per topic) Individual Research in Education. The selection, investigation, and writing of a research topic under the personal supervision of a member of the departmental graduate staff, in one of the following areas: (a) Curriculum, (b) Supervision for Instructional Improvement, (c) Language Arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social Studies, (h) Early Childhood Education, (i) Elementary Education, (j) The Middle School, (k) Secondary Education, (l) Disadvantaged Children and Youth, (m) Instruction, (n) Educational Media, and (o) Environmental Education, (p) Children's Literature. Maximum of three hours counted toward a master's degree. Prerequisite: consent of instructor.

594-(3 to 9 per topic) Practicum. For master's degree students: professional consultation, teaching demonstration, practical application of advanced theory, work with clinical cases, or program development, implementation, and evaluation in school systems, community colleges, or universities. Reading and research directed to special problems involved in on-site situations in the following areas: (a) Curriculum, (b) Supervision for Instructional Improvement, (c) Language Arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social Studies, (h) Early Childhood Education, (i) Elementary Education, (j) The Middle School, (k) Secondary Education, (l) Disadvantaged Children and Youth, (m) Instruction, (n) Educational Media, and (o) Environmental Education. A maximum of nine hours credit may be applied toward a master's degree. Prerequisite: consent of instructor.

595-(2 to 8 per topic) Internship. Culminating experience for Ph.D. or specialist degree students. Each student engages in specialized service areas either in his own or a cooperating school or school system or university. Weekly on-campus or on-site seminar will be held with the intern supervisor. Internship areas are: (a) Curriculum, (b) Supervision for Instructional Improvement, (c) Language Arts, (d) Science, (e) Mathematics, (f) Reading, (g) Social Studies, (h) Early Childhood Education, (i) Elementary Education, (j) The Middle School, (k) Secondary Education, (l) Disadvantaged Children and Youth, (m) Instruction, (n) Educational Media, and (o) Environmental Education. A maximum of eight hours credit may be applied toward a Ph.D. or specialist degree. Prerequisite: consent of instructor.

596-3 to 6 Independent Investigation. Field study required of each student working for the sixth year specialist degree. The work should be done in the setting of a school system where the student is employed or where cooperation is extended. The study involves selecting the problem, survey of pertinent literature, recording results, and appropriate interpretations and summarizations. Prerequisite: consent of instructor.

599-2 to 6 Thesis. Minimum of four hours to be counted toward a master's degree.

600-1 to 32 (1 to 16 per semester) Dissertation. Minimum of 24 hours for the Doctor of Philosophy degree.

Economics

416-3 Money and Banking II. An examination of the principal institutions whose joint actions determine the supply of money in the United States economy. Emphasis is placed on the commercial bank operating as a firm within the Federal Reserve System. Policy issues are examined for the regulation of the banking industry as well as for the control of the domestic money supply. Prerequisite: 315 or 340 or 341 or consent of instructor. Elective Pass/Fail.

419-3 Latin American Economic Development. Special attention to contemporary policy issues and alternative strategies for development. Among the topics included are inflation and financial reform, international trade and economic integration, foreign investment and agrarian reform. Prerequisite: 322 or 340 or 341 or consent of instructor. Elective Pass/Fail.

420-3 The History of American Growth in the 20th Century. An analytical survey of American growth in the present century. Concentrates on problems associated with the United States' role as a world economic power and changes in economic institutions engendered by rapid technological change and the need to cope with such problems as income distribution, equity, the growing public sector, inflation, unemployment and others. Prerequisite: 340 or 341 or consent of instructor. Elective Pass/Fail.

425-4 Economics in Geography and Planning. (Same as Geography 422.) Concepts, symbols, language, theory, elementary mathematics of economics and geography.

Individual's preferences, production functions, the firm, markets, optimality, externalities, and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: Geography 300 or consent of instructor. Elective Pass/Fail.

429-3 International Trade and Finance. Analysis of the pattern and volume of world trade and capital flows; effects of trade and payments on the domestic economy; problems and methods of adjusting to change in the balance of payments. Prerequisite: 340 and 341 or consent of instructor. Elective Pass/Fail.

431-3 Public Finance II. State and local. Analysis of the economic effects, problems, and alternative solutions concerning state and local government expenditures, revenues, and debt. Prerequisite: 330 or consent of instructor. Elective Pass/Fail.

436-3 Government and Labor. (Same as Political Science 428.) Influence of government and law on collective bargaining, on the internal operation of unions and on job discrimination in the public and private sectors. Prerequisite: GSB 211 and 212 or equivalents or consent of instructor. Elective Pass/Fail.

440-3 Price, Output, and Allocation Theories. A systematic survey of theories of product prices, wage rates, rates of production and resource utilization under conditions of competition, monopolistic competition, oligopoly and monopoly markets. Emphasis is on developing analytical tools useful in the social sciences. Not open to students who have had Economics 340. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

441-3 Contemporary Macroeconomic Theory. An examination of the causes of inflation, unemployment and fluctuations in aggregate economic activity factors affecting consumption and investment, and the sources of economic growth. Emphasis is on understanding contemporary United States macroeconomic problems and the options for fiscal, monetary and incomes policies facing the United States government. Not open to students who have had 341. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.

442-3 Monopoly and Competition in the Industrial State. A survey of economic theories and empirical studies on the nature and consequences of business rivalry in imperfectly competitive markets. Prerequisite: 340 or 440 or consent of instructor. Elective Pass/Fail.

443-3 Senior Seminar in Economics and Problems and Policy. Application of the tools of economic analysis to the study of contemporary social problems. Economics graduate students not permitted to enroll in this course. Prerequisite: 440 and 441; or 340 and 341; senior standing. Elective Pass/Fail.

465-3 Mathematical Economics I. A systematic survey of mathematical economics. Application of basic mathematical tools to economic analysis, and a restatement of economic theory in mathematical terms. Prerequisite: 340 or 440, and Mathematics 117 or 140, or consent of instructor. Elective Pass/Fail.

467-3 Introduction to Econometrics. Introduction to the use of statistical inference and distribution theory for measuring and testing economic theory. Emphasis placed on the linear model, least squares estimation, hypothesis testing, and the underlying assumptions. Prerequisite: 308 or consent of instructor. Elective Pass/Fail.

471-3 Land Resource Economics. (See Agricultural Industries 440.) Elective Pass/Fail.

479-3 Problems in Business and Economics. (Same as Administrative Sciences 479.) Application of economic theory and tools of analysis to practical business problems. Cost and demand functions, and forecasting are analyzed from a policy standpoint. Prerequisite: 215; 308 or Administrative Sciences 208; Marketing 304. Elective Pass/Fail.

481-3 Comparative Economic Systems. Capitalism, socialism, communism and other forms of social organization are examined from a theoretical point of view. Economic and social theories from Adam Smith and Karl Marx to Milton Friedman and Paul Sweezy will be examined. Prerequisite: 340 to 440 or consent of instructor. Elective Pass/Fail.

490-3 Workshop in Economic Education. (Same as Secondary Education 490.) Designed to assist elementary and secondary school teachers in promoting economic understanding in the minds of their students through the translation of economic principles and problems into classroom teaching materials. Elective Pass/Fail.

500-3 to 24 (3 per topic) Economics Seminar. A study of a common, general topic in the field of economics with individual reports on special topics. Prerequisite: consent of instructor.

501-1 to 21 Economics Readings. Readings from books and periodicals in economics. Master's degree students limited to a total of six hours. Prerequisite: consent of instructor and chairman.

502-1 to 4 Readings in Resource Economics. (See Forestry 590.)

505-1 to 8 Political Economy Seminar. Cooperative teaching in the political economy area. Designed to introduce students to contemporary problems in political economy emphasizing the research interest of the faculty and students. Graded *S/U* only. Prerequisite: consent of instructor.

507-1 to 4 (1, 1, 1, 1) Practicum in Undergraduate Teaching. Emphasizes teaching methods, source materials, and preparation of classroom materials. All teaching assistants must enroll. One hour of credit per semester. Graded *S/U* only.

510-2 Research in Economics: Design, Methodology, and Presentation. Systematic approach to economic research. Includes research planning and design, exploration of the

various sources of data, and the most frequently used methodology. The last part of the course is concentrated on techniques for communicating the results of research. Prerequisite: consent of instructor.

512-3 Seminar in Labor Institutions. Multi-disciplinary approach to collective bargaining in the private and public sectors, considering industrial relations theory, and the economic effects of collective bargaining. Readings and cases. Prerequisite: 310 or equivalent or consent of instructor.

517-3 Monetary Theory and Policy. A survey of contemporary monetary theory and related policy issues. Prerequisite: 541 or consent of instructor.

518-3 Monetary Theory and Policy II. Contemporary topics in monetary theory and policy, including analysis of the roles of money in inflation and economic growth, and an appraisal of the conduct and impact of monetary policy. Prerequisite: 517 or consent of instructor.

520-6 (3, 3) Economic Development Theory and Policy. (a) Classical, neoclassical, and modern contributions to the theory of development; theories of underdevelopment. (b) Basic approaches to economic development; laissez-faire; balanced growth; unbalanced growth, role of government; methods of planning; and foreign aid. Must be taken in a,b, sequence. Prerequisite: consent of instructor.

522-3 Microeconomic Foundations of Labor Markets. The approach is theoretical. Topics include the theory of wage and employment determination, labor mobility, labor market imperfections, the special problems of minority group labor, and trade union issues. Prerequisite: 538 or 540B or consent of instructor.

525-4 Economics in Geography and Planning II. (Same as Geography 522.) Public expenditure criteria based on free-market allocation, public, private, and merit goods and services, and related planning; expenditure criteria based on comprehensive plans; expenditure criteria and planning in the absence of general optimality; multiple objectives, measurement of benefits and costs, shadow prices, choice of techniques in planning; consideration of uncertainty. Critical evaluations of applied work and models of development projects and programs by students. Prerequisite: 422 or consent of instructor.

526-3 Managerial Economics. A course in the economics of the firm. Designed to develop a conceptual framework for business decision making with emphasis on demand, costs, prices, and profits. Credit may not be earned for both Economics 440 and this course. Prerequisite: 214 and 215, or consent of instructor.

530-3 Foreign Trade. Emphasis on the advanced theory of international trade, survey of significant literature in international theory. Study of more advanced tools of analysis. Prerequisite: 340 or 440 or consent of instructor.

531-3 International Finance. Application of theory to current international economic developments. Empirical studies. Prerequisite: 329 or consent of instructor.

532-3 Economics of Human Resources. The study of institutions and policies designed to solve manpower problems. Emphasized such topical areas as unemployment, underemployment, manpower training and development, labor market behavior, vocational education, labor problems of the handicapped, the aged, women, and minority groups, health economics, economics of education and poverty. Prerequisite: consent of instructor.

533-3 Public Finance Theory and Practice. Historical development of public finance theories with analysis of their policy implications. Prerequisite: 330 or consent of instructor.

538-3 Advanced Price, Output, and Allocation Theories. A systematic development of production, distribution, and allocation theories for competitive and non-competitive markets. Prerequisite: 340 or 440 or consent of instructor.

540-8 (4, 4) Microeconomic Theory I and II. Taken in a,b sequence except with consent of instructor. Prerequisite: 340 or 440 or consent of instructor.

541-6 (3, 3) Macroeconomic Theory I and II. Taken in a,b sequence except with consent of instructor. Prerequisite: 441 or 341 or consent of instructor.

552-3 Seminar in Economic Thought. An exploration of the basic philosophic assumptions which underlie the various types of economic thought with special emphasis upon the historical development of the premises of modern day economic theories. Prerequisite: 450A or B or consent of instructor.

555-3 Seminar in Economic History. An examination of the structural economic changes in various economies throughout the world. Prerequisite: consent of instructor.

562-3 Seminar in Economic Systems. A final, theoretically-oriented examination of economic systems. Includes recent theoretical models; contemporary changes in major economic systems; the emergence of mixed systems. Related economic, social, and political systems and evaluates attempts to place economic systems within the context of general systems theory. Prerequisite: 481 or consent of instructor.

565-3 Applied Econometric Analysis. Applications of statistical tools to specific economic problems. Numerous examples will be examined in order to achieve this goal. Emphasis will be given to model misspecification, non-classical estimation techniques, data analysis, and simultaneous equations. Prerequisite: 467 or consent of instructor.

566-3 Mathematical Economics II. Linear economic models. Linear programming.

Input-output analysis and general equilibrium models. Prerequisite: 340 or 440 or 465 or consent of instructor.

567-6 (3, 3) Econometrics I and II. (a) Linear regression analysis as applied to single equation economic models. Problems of least squares, maximum likelihood, and Bayesian estimation techniques in stochastic economic models. (b) Elements of asymptotic distribution theory and estimation techniques in multiple equation economic models. Take in a,b sequence except with consent of instructor. Prerequisite: Mathematics 514 or consent of instructor.

570-3 Seminar in Contemporary Microeconomic Theory. An investigation of recent developments and current controversies in economic theory with emphasis on microeconomic problems. Prerequisite: 540B.

571-3 Seminar in Contemporary Macroeconomic Theory. An investigation of recent developments and current controversies in economic theory with emphasis on macroeconomic problems. Prerequisite: 541B or consent of instructor.

575-3 Microeconomic Regulations. An analysis of the economic causes and effects of the regulation of agriculture, business, and labor. Prerequisite: 440 or 340 or consent of instructor.

583-3 Methodological Foundations of Economics. A systematic analysis of the nature, philosophical content, premises, scope, boundaries, and characteristic methods of economics. The history of economic thought is drawn upon, but major focus is upon the contemporary state of the discipline as well as upon apparent methodological trends. Prerequisite: 340 or 440, and 341, or 441, or consent of instructor.

585-3 Seminar in Social Economy. Interrelations between economic institutions and processes within the larger societal context. Applicable economic, political, and social theory, as well as empirical studies brought to bear. Prerequisite: 340 or 440 or consent of instructor.

590-1 to 8 (1 per semester) Seminar in Contemporary Economics. Presentation and discussion of current research in economics. One hour credit per semester. Graded *S/U* only.

599-1 to 6 Thesis. Minimum of four hours to be counted toward a master's degree. Graded *S/U* only.

600-1 to 36 (1 to 16 per semester) Doctoral Dissertation. Hours and credit to be arranged by Director of Graduate Studies. Graded *S/U* only.

Education

400-4 Student Teaching. A requirement in the undergraduate professional education sequence, 400 represents preliminary student teaching experiences necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Professional Education Experiences. For undergraduate credit only. Students majoring in special education and seeking entitlement to more than one teaching certificate in the State of Illinois may in certain instances be allowed credit for up to 8 semester hours of Education 400. Such increase in hours shall be contingent on the student enrolling in 4 hours of Education 400 in each of the two semesters, and shall require the written permission of the coordinator of professional education experiences. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 401.

401-8 Student Teaching. A requirement in the undergraduate Professional Education Sequence, 401 concludes the student teaching experience necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Professional Education Experiences. For undergraduate credit only. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 400.

450-1 to 10 Experimental Education. Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.

550-1 to 10 Experimental Education. Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.

590-4 Doctoral Seminar in Cultural Foundations of Education. This seminar is one of two courses required for all students pursuing a doctoral program in the College of Education. The primary objectives are to aid in the development of the doctoral student's own nature and reflective theory of education; to help students pursue their scholarly activities in relation to the whole field of education; and to make the student aware of the resources of scholarship in other disciplines which might be said to be foundational to education. Prerequisite: admission to the Ph.D. program in Education.

591-4 Doctoral Seminar in Behavioral Foundations of Education. This seminar is one of two courses required for all students pursuing a doctoral program in the College of Education. The primary objectives are to aid the student in describing the attitudes, assump-

tions and practices which underlie empirical inquiry; to help the student to recognize the strengths and weaknesses of the various types of research in terms of methodology employed; and to aid the student in identifying and refining a research question and constructing a research design appropriate to answer the research question. Prerequisite: admission to the Ph.D. program in Education.

Educational Leadership

421-3 The Law, The Teacher, and The Student. Legislative and case law including civil rights and responsibilities for the teacher and for the student.

430-3 History of Education in the United States. An historical study of the problems of American education.

431-3 Workshop in Adult and Community Education. The focus for this workshop is to provide quality in-service education for practitioners in the field of adult and community education with a variety of specialties.

432-3 Education and Social Forces. A study of the social forces that shape educational policies in the United States.

454-3 Contrasting Philosophies of Education. An examination of current educational problems and trends in the light of contrasting philosophies of education.

465-3 Organization and Administration of Adult and Community Education Programs. Review of methods and procedures for working with various types of adult programs and populations, for administering adult curricula programs and staff, for using area and state social services, and for program funding are the primary emphases of this course.

500-3 Educational Research Methods. Introduction to educational research with practical training in research writing and evaluation techniques in education. Previous or concurrent enrollment in measurement and/or statistics recommended.

501-3 Educational Administration: Tasks and Processes. An examination of the administrative tasks and processes dealing with interaction within the school organization and between the organization and its environment. Components will be viewed for their essential interrelatedness as well as their unique aspects. Emphasis will be placed upon the processes by which change is brought about in dealing with decision making, programming, communication, motivating, controlling, and evaluating.

503-3 Educational Administration: Introduction to Theory. Examination of the various administrative tasks in light of established organizational models and leadership theories. The student will be introduced to a variety of theories, models, and concepts that have pertinence to the field of educational administration. Emphasis will be placed upon the methods of theory construction and the development of a theoretical orientation to the solution of administrative problems. The course draws heavily upon research done in the behavioral sciences.

505-2 Organization and Administration of the Middle and Junior High School. Focuses on the problems and processes of the administration and organization of the middle school or the junior high school.

507-3 Secondary School Principalship. Deals with problems met specifically by the high school principal. Emphasizes his role in relation to guidance, curriculum, schedule-making, extra-curricular activities, public relations, budgeting of time, etc.

509-3 School-Community Relations and Development. Practical and theoretical aspects of public relations as applied in general and as applied specifically to educational institutions and efforts. Involved are the practical and theoretical considerations of educational institutions assisting in the further development of the community or communities in which they find themselves.

510-3 Cultural Foundations of Adult Education. To define the awareness of adult education as a unique aspect within the broad field of education, and to develop an understanding of the principles underlying all phases of adult education.

511-3 Organization and Administration of Curriculum. The organization and administration of the curriculum including the elements and sub-elements comprising a curriculum are the primary focus. Emphasis placed on a rationale, including the socio-cultural and psycho-philosophical factors, political forces and factors, goals, instructional activities, and evaluation. This course has general application to both elementary and secondary curriculum organization.

513-3 Supervision of Instruction. The function of the principal and/or supervisor in the improvement of instruction and in curriculum development. Activities, methods, and devices for improving the effectiveness of instruction stressed. Prerequisite: 511 or consent of instructor.

515-1 to 12 Current Issues in Educational Administration. An examination of current issues that affect the various administrative levels in educational systems. The issue selected receives intensive treatment and review.

517-3 The Legal Framework of Education. A study of administrative, judicial, statutory, and constitutional laws which have application in American public schools.

519-3 Illinois School Law. A study of administrative, judicial, statutory, and constitutional laws which have application in the Illinois public schools.

521-3 School Facilities. A study of the basic techniques and methods of planning new facilities and evaluating existing facilities. Major emphasis is placed on the preparation of the facility master plan and educational specifications. Other related topics to be studied include site selection and development, furniture and equipment, maintenance and operation, pupil transportation, and the finance of capital outlay programs.

523-3 Systems Analysis: An Application to Education. The application of methods which facilitate the planning, evaluation, and decision making processes as they relate to accountability, cost analysis efficiency, and effectiveness. Emphasis is placed upon understanding the "systems concept", planning and controlling within a system, system cost analysis, and managing a system.

525-3 School Finance Theory. A study of the principles and issues of public school finance. Basic theory, revenue systems, expenditures for public and non-public education, state foundation programs, federal aid programs, and local finance issues are studied in both the theory and contemporary settings. Specific emphasis is given to the Illinois public school financial support program in comparison to alternative formulas and methods as practiced in selected states.

527-3 School Business Administration. A study of the principles and practices governing management of business affairs of a public school system. Included are such topics as revenues, expenditures, accounting, auditing, reporting, and applications of electronic data processing as a management tool. Practical experience is given in using the Illinois financial accounting manual as well as other managerial procedures. Detailed study is made of the role of the school business administrator in the local school district.

529-3 Supervision of Personnel: Problems. Supervision of personnel problems and tasks as they relate to educational organization and goals. Emphasis is given to an analysis of supervision of personnel problems arising from changing developments in organization.

530-3 Historical Research in Education. Seminar designed to explore the literature, methods, and possibilities of historical research in education.

531-3 School Board and Policies. Focuses on superintendent-school board relationships. It investigates the administrative team's role and functions as they relate to leadership in educational policy making.

533-3 Elementary School Principalship. A critical study of research and writing with implications for the elementary principalship. Designed to meet many of the particular needs of persons interested in becoming elementary principals. Other persons such as teachers, superintendents, and staff personnel will gain insight into problems and responsibilities of the elementary principal's role.

539-3 Evaluation and Accreditation in Public Schools. Developed to familiarize pre- and in-service teachers and administrators with the purpose, processes, roles, and instrumentation utilized by regional and state accreditation agencies. It is designed to prepare professional educators to implement both evaluator-evaluated roles in the systematic process of accreditation and educational improvement at the local school level. It may be delivered on campus through simulated activities or on site in conjunction with real school evaluations. Prerequisite: consent of instructor.

541-3 Personnel Evaluation. Directed toward the development of personnel evaluation systems for educational institutions. It will encompass both certificated and non-certificated personnel and examine a variety of methods/means approaches. The legal ramifications of evaluation and the use of evaluative data will be discussed in light of current federal and state laws and court decisions with respect to teacher tenure, due process and other principles.

551-3 Educational Leadership: Politics of Education. An examination of the political setting of educational administration selected leadership practices, and a general study of leadership theory. This course is open to students in approved sixth-year and doctoral programs only. In addition to educational leadership related to the politics of education, emphasis is given to innovative and contemporary practices of school administration.

552-3 Seminar in Comparative Education. A general introduction to comparative and international education. Comparison of educational ideas and practices of various countries in major regions of the world.

553-3 Educational Leadership: Systems and Accountability. An in-depth study and examination of the methods of determining accountability in education. An examination of educational organizations as complex systems will be made in conjunction with the application of specific administrative techniques applied to practical educational problems. Cost, time, and demand functions will be analyzed from an efficiency and effectiveness standpoint. Open to approved sixth-year and doctoral students. Prerequisite: 551.

554-3 Seminar in Philosophy of Education. An interpretation of modern educational problems and trends in the light of basic philosophical viewpoints. Excerpts from the leading philosophical writings are used. Prerequisite: consent of instructor.

555-3 Advanced Educational Administration Theory. An advanced seminar devoted to

the study of classical and modern theories concerning the administration of complex organizations. Particular emphasis is placed on organizations as social units that pursue specific goals which they are structured to serve. The major areas of study are organizational goals, organizational structure, and organizations and their social environment. Prerequisite: 503 or equivalent.

556-3 Seminar in History of European Education. A survey and interpretation of education in Europe from the Greek era to the present. Stresses the relationship of European to American education.

558-3 to 9 (3, 3, 3) Advanced Seminar in Comparative Education. A study of foreign educational systems in historical, cultural, political, and world perspective. Areas of the world or specific countries are indicated by the following letters: (e) England, (m) Mexico, (s) Soviet Union.

559-3 Interdisciplinary Seminar in Educational Administration I. Seminar designed to assist specialist and doctoral students in understanding cognitive disciplines which relate directly to administrative competence. It is part of a two-part sequence which treats topics in political science, sociology, and communicative skills.

560-3 Education and Culture. A study of the concept of culture and its relation to the process of education.

561-3 Interdisciplinary Seminar in Educational Administration II. Seminar designed to assist specialist and doctoral students in understanding cognitive disciplines that relate to administrative competence. It covers areas in economics, anthropology, history, philosophy, etc.

562-3 Education and the American Way of Life. An exploration of the themes that have shaped life in the United States and the relation of these themes to education.

564-3 Education and the Challenges of the Twentieth Century. An exploration of major movements in the contemporary world in terms of their importance for American education.

588-3 to 9 General Graduate Seminar. Selected topics or problems in cultural foundations of education. Prerequisite: advanced standing and consent of instructor.

590-1 to 6 Readings in Administration and Foundations. Advanced reading in one of the following areas: (a) Administration, (b) Buildings, (c) Supervision of Curriculum, (d) Finance, (e) School Law, (f) Supervision, (g) Comparative education, (h) History of education, (i) Philosophy of education, (j) Sociology of education, (k) Adult and community education. Prerequisite: consent of chairman.

593-1 to 3 per topic Individual Research. Maximum of six hours toward master's degree. Selection, investigation, and writing of a research assignment under the personal supervision of a graduate faculty member in one of the following areas: (a) Administration, (b) Buildings, (c) Supervision of Curriculum, (d) Finance, (e) School Law, (f) Supervision, (g) Comparative Education, (h) History of Education, (i) Philosophy of Education, (j) Sociology of Education, (k) Adult and Community Education. Prerequisite: consent of chairman.

595-1 to 8 Internships in Educational Administration. Theory and practice in educational administration in cooperation with a work experience in an educational setting. Prerequisite: consent of student's adviser or committee and chairman.

596-1 to 6 Independent Investigation. Field study required or each student working for the sixth year specialist degree.

597-1 to 8 Externship. Externship conducted at home institution of Fellows in the federally funded program "Developing Leaders in Developing Institutions." The student, cooperating with the program director and president of the home institution, identifies a major problem at the home institution which becomes a focus of the student's dissertation.

599-1 to 6 Thesis.

600-1 to 36 (1 to 16 per semester) Dissertation. Minimum of 24 hours to be earned for the Doctor of Philosophy degree.

Engineering

Safety glasses are required for some courses in this area.

443-4 Engineering Design. Projects of an engineering systems design nature. Students select a problem, define and design the various subsystems, define subsystem interface requirements, integrate the subsystems into the final design and document the design effort. Laboratory. Not for graduate credit in engineering. Prerequisite: senior standing in engineering.

455-3 Engineering Geology. (See Geology 455.)

Electrical Sciences and Systems Engineering

Graduate work in the Department of Electrical Sciences and Systems Engineering is offered toward a concentration for the Master of Science degree in Engineering. Safety glasses are required for some of the courses in this department. Four-

hundred-level courses in this department may be taken for graduate credit unless otherwise indicated in the course description.

421-2 Digital Computers in Applied Physical Research. Computational techniques for matrix inversion, solution of linear equations, and characteristic roots and vectors. Least squares analysis, curve-fitting, and regression. Numerical quadrature. Solution of nonlinear equations. Solution of regular differential equations and boundary-value problems. Generation of approximate solutions. Monte Carlo techniques. Engineering and other physical examples are used as the primary teaching vehicle. Prerequisite: Engineering 222 and Mathematics 305. Elective Pass/Fail.

426-3 Hybrid Computation. Use of analog and digital computers for solution of engineering problems. Comparison between analog and digital problem-solving techniques. Hybrid simulation of engineering systems. Prerequisite: Engineering 222 and Mathematics 305, or consent of instructor. Elective Pass/Fail.

427-3 Digital-Systems Design I. Concepts of digital systems. Relation of Boolean algebra to switching circuits. Combinational logic circuit implementation. Minimization of combinational functions by algebraic techniques, Karnaugh mapping, and tabular methods. Sequential systems. Basic design methods for synchronous systems. Prerequisite: Engineering 345 or senior standing. Elective Pass/Fail.

446-4 Electronic Circuit Design. Design techniques for a wide range of electronic circuits. Device and circuit modeling. Computer aided circuit design. Consideration of audio, video, and tuned amplifiers; feedback; oscillators; digital circuits. Design project. Lecture and laboratory. Prerequisite: 455 or concurrent enrollment. Elective Pass/Fail.

447-2 Applications of Modern Electronic Devices. Physical mechanisms governing fabrication and operation of transistor, charge-transfer, photosensitive, display, and Hall-effect devices. Techniques of fabrication of integrated circuits and hybrid microelectronics. Device design. Prerequisite: Engineering 312 and 345. Elective Pass/Fail.

455-3 Linear Systems. Fundamental techniques in analysis of linear systems. Transient analysis of linear electrical networks and analogous systems by classical, Laplace-transform, and computer techniques. Feedback, frequency response, and state variables. Prerequisite: Engineering 335 and Mathematics 305. Elective Pass/Fail.

456-3 Control Theory. Fundamentals and techniques for analysis and design of systems with feedback. Signal flow graphs. S-plane analysis. Frequency-domain analysis. Root locus. Stability conditions. Compensation techniques. Prerequisite: 455. Elective Pass/Fail.

457-3 Systems Theory. In-depth study of system concepts such as interaction, anticipation, feedback, feedforward, stability, and memory. Methods which maintain flexibility and generality in dealing with all types of engineering systems. Prerequisite: Mathematics 305 or consent of instructor. Elective Pass/Fail.

458-3 Communications Theory. Basic information theory. Fourier series and transform. Sampling theory. Amplitude modulation, frequency modulation, and pulse modulation. Signal-to-noise ratio. Statistical methods. Prerequisite: 455. Elective Pass/Fail.

461-4 Bio-electricity and Biomedical Instrumentation. Interdisciplinary course primarily for life-science students. Electromagnetics relative to living systems. Circuit analysis. Functional electronics. Electric safety. Specific clinical and research instrumentation. Lecture and laboratory. Elective Pass/Fail.

465-3 Instrumentation. Theory and practice related to measurement systems for research and industry. Instrument characteristics. Techniques in analog and digital instrumentation. Transducers. Signal conditioners. Output and display systems. Statistics of measurement. Design project. Lecture and laboratory. Prerequisite: Engineering 345. Elective Pass/Fail.

476-3 Electromagnetic Fields I. Electric and magnetic fields using vector analysis. Evolution of Maxwell's equations through the laws of Coulomb, Gauss, Ampere, and Faraday. Concepts of energy and potential. Poisson and Laplace fields. Wave equation and plane waves. Transmission lines. Prerequisite: Mathematics 305. Elective Pass/Fail.

477-3 Electromagnetic Fields II and Microwaves. Application of Maxwell's equations and the laws of electromagnetics to boundary-value problems, microwave devices, guiding structures, and radiating structures. Poynting's theorem and energy relationships. Lecture and laboratory. Prerequisite: 476. Elective Pass/Fail.

486-3 Electric Energy Sources. Principles and utilization of nuclear, solar, and fossil-fuel generators. Direct energy converters including thermionic, thermoelectric, and photovoltaic. Prerequisite: Engineering 385 or consent of instructor. Elective Pass/Fail.

487-4 Power Systems Analysis I. Introduction to analysis of electric power systems. Modeling of power system components. Power system configuration. Control of power and frequency. Control of voltage and reactive power. Load-flow analysis. Introduction to symmetrical components. Prerequisite: Engineering 385. Elective Pass/Fail.

492-1 to 5 Special Problems in Engineering. Topics and problems selected either by student or instructor. Prerequisite: senior standing and consent of instructor. Elective Pass/Fail.

527-3 Digital Systems Design II. Synchronous and asynchronous sequential-systems analysis, design, and optimization. Number systems. Arithmetic-system design. Codes, code conversion, and linear sequential circuits. Digital contact networks. Analog/Digital conversion. Prerequisite: 427.

536-3 Network Synthesis. Introduction to modern network synthesis. Driving point and transfer functions. Positive real functions, Foster networks, and Cauer networks. Active network elements. Synthesis using active elements. Prerequisite: 445 or consent of instructor.

547-3 Solid-State Theory of Electronic Materials. Electronic properties of materials and their application to practical devices. Quantum and statistical mechanics. Semiconductor principles and devices. Thermo-electric phenomena. Magnetic materials. Quantum electronics and lasers. Prerequisite: consent of instructor.

556-3 Modern Control Theory. Introduction to topics in modern control theory. State variables. Concepts of controllability and observability. Stability theory. Nonlinear control. Sampled-data control theory. Signal-modulated systems. Optimal control. Prerequisite: 456 or consent of instructor.

557-6 (3, 3) Complex Systems. Theory, techniques, and philosophy of analyzing and designing complex engineering systems. Methods which maintain generality in dealing with complex combinations of diverse subsystems such as electrical, mechanical, chemical, transport, and biological. Prerequisite: 457 or consent of instructor.

577-4 Electromagnetic Fields III. Application of Maxwell's equations and the laws of electromagnetics to more advanced boundary-value problems, circuits, propagation and reflection, guiding structures, and antennas. Prerequisite: 477 or consent of instructor.

580-1 to 4 Seminar. Collective and individual study of selected issues and problems relating to various engineering areas.

586-3 Power Systems Analysis II. Techniques for solving power system problems. Network reduction. Load-flow, short-circuit, and transient-stability studies. Utilization of digital and analog computers. Prerequisite: 487.

592-1 to 5 Special Investigations in Engineering. Advanced engineering topics or problems. Prerequisite: graduate standing and consent of instructor.

599-1 to 6 Thesis.

Engineering Mechanics and Materials

Graduate work in the Department of Engineering Mechanics and Materials is offered toward a concentration for the Master of Science degree in engineering. Safety glasses are required for some of the courses in this department. Four-hundred-level courses in this department may be taken for graduate credit unless otherwise indicated in the course description.

409-3 Hydrology and Hydraulic Engineering Design. Study of the hydrologic cycle. Streamflow analysis. Unit hydrograph. Matrix methods; synthetic methods. Frequency analysis; multivariate distributions. Hydrologic and hydraulic routings. Groundwater hydrology. Application of hydrology to the design of various hydraulic structures: small dams, spillways, drainage systems. Prerequisite: Engineering 313 or equivalent or consent of instructor. Elective Pass/Fail.

413-3 Mechanics of Fluids—Analysis and Design. The analysis and design of the elements of fluid systems. Fluid machinery; open and closed conduit systems; flow through porous media; principles of propulsion. Selected design topics. Prerequisite: Engineering 313 or equivalent.

414-2 Intermediate Fluid Mechanics. A coherent presentation of the specialized topics of fluid dynamics from the common analytical background of the general equations of motion. Real fluid flow theory and the Navier-Stokes equations. The potential flow theory and the Laplace equation. Introduction to conformal mapping. Numerical methods. The Boundary Layer theory. Dynamic similitude. Normalized equations of motion and energy. Modeling ratios. Prerequisite: Engineering 313 or equivalent.

417-3 Fundamental Compressible Fluid Flow. Equations of motion for compressible flow. Wave propagation in compressible media. Isentropic flow of a perfect gas. Normal shock waves. Oblique shock waves. Prandtl Meyer flow. Flow with friction, heat addition and heat loss. Flow with applied magnetic fields. Imperfect gas effects. Prerequisite: Engineering 313 or equivalent.

419-3 Soil Mechanics and Foundation Engineering Design. Study of soil behavior and its application in foundation engineering. Laboratory. Soil-water systems and interactive forces; stress-strain characteristics; effective stress concept; drained and undrained conditions for saturated soils; theory of consolidation. Design of retaining walls, earth dams, shallow and deep foundations. Prerequisite: Engineering 311; 313; or consent of instructor.

440-3 Structures. An introduction to structural engineering. The design procedure. Loads. Types of structures. Structural materials, safety. Social and environmental considerations. Analysis of structures. Influence lines. Deflections. Slope deflection. Moment distribution. Matrix methods. Prerequisite: Engineering 311 or consent of instructor.

441-3 Vibrations in Machines and Structures. Systems with several degrees of freedom. Equations of motion. Phasor and trigonometric solution. Applications. Prerequisite: Engineering 260b and Mathematics 305.

442-3 Structural Steel Design. An introduction to structural steel design with emphasis

on buildings. Composite design. Plate girders. Rigid frames. Prerequisite: 440 or consent of instructor.

444-3 Reinforced Concrete Design. Behavior and strength design of reinforced concrete beams, slabs, compression members, and footings. Prerequisite: 440 or consent of instructor.

447-2 Intermediate Mechanics of Materials and Structures. Shear center for beams. Unsymmetrical bending. Flexure of curved members. Contact stresses. Energy methods. Inelasticity in one dimension. Buckling formulas. Prerequisite: Engineering 311.

448-3 Experimental Stress Analysis. Theoretical and experimental methods of determining stresses and strains; use of optical, electrical, and mechanical instrumentation; relation of model and prototype; brittle coating; electrical resistance gages; Moire analysis; two-dimensional photoelastic method. Laboratory. Prerequisite: Engineering 311.

449-2 Intermediate Dynamics. Kinematics and kinetics of plane and three-dimensional motion. The principles of work and energy applied to the motion of rigid bodies. The principle of impulse-momentum applied to variable mass and rigid body systems including gyroscopic motion. Vibrational analysis of single degree of freedom systems. Prerequisite: Engineering 260b.

451-3 Numerical Methods in Mechanics. An introduction to the available numerical methods and techniques which are employed to solve engineering problems with special emphasis devoted to areas of mechanics involving stress analysis, vibrations, fluid flows, mechanisms, and structures. Prerequisite: Engineering 222, 311, 313 or consent of instructor.

458-2 Photoelasticity. Optics related to photoelasticity; theory of photoelasticity; photoelastic model materials; analysis techniques; three-dimensional photoelasticity; birefringent coatings; holography in photoelasticity; application of photoelastic methods in industrial problems. Laboratory. Prerequisite: Engineering 311.

462-3 Matrix Methods of Structural Analysis. Flexibility method and stiffness method applied to framed structures. Introduction to finite elements. Prerequisite: Engineering 222 and 311 or consent of instructor.

464-2 Intermediate Materials Science. Internal structure, treatment, and properties of metals and intermetallic compounds. Theory of dislocations in metals. Plastic flow, phase transformations, martensitic transformation, and x-ray diffraction identification of metallic phases. Prerequisite: Engineering 312.

465-3 Preparation of Crystalline Materials. Crystalline materials preparation. Phase rule. Crystal growth. Homogeneous and heterogeneous nucleation. Absorption. Impurities, rate of crystallization. Preparative crystallization. Twinning. Spiral growth theory Recrystallization. Perfection of crystalline materials. The solid as an imperfect body. Isomorphic substitution. Composition disorder. Electron holes and traps. Diffusion. The role of imperfections. Prerequisite: 464.

470-3 Engineering Analysis. Methods of solution for basic ordinary differential equations with applications to engineering systems. Basic methods of solution for partial differential equations with emphasis on applications of the Laplace, Poisson, and heat equations to engineering problems. Basic vector field theory; transformation theorems. Simulation techniques applied to engineering systems. Prerequisite: Mathematics 305 or equivalent.

492-1 to 5 Special Problems in Engineering. Selected engineering topics or problems in (a) Stress Analysis, (b) Fluid Flow Analysis, (c) Structural Engineering, (d) Computational Mechanics, (e) Materials Engineering and (f) Dynamics. Prerequisite: consent of instructor.

504-6 (3, 3) X-Ray Diffraction and the Solid State. (Same as Physics 571.) (a) Diffraction by an arbitrary object in Fourier transform formulation, symmetry properties of scattering functions, the convolution theorem, the Q function or auto convolution, the two repeated Fourier transformations, x-ray diffraction by an atom, by a molecule, by an ideal crystal, and by a finite crystal. Optical transforms: Fraunhofer diffraction of a circular aperture, of a molecule and a crystal of disc like atoms. The Fourier synthesis and the Patterson synthesis. The inverse Fourier syntheses. High speed computations of Fourier transforms and of Fourier series. (b) The Born-Laval theory of temperature diffuse scattering of x-rays; determination of elastic constants, dispersion relations of frequencies and velocities, interatomic force constants and elastic vibrational spectrum. Determination of Debye characteristic temperatures from the inversion phenomenon of one-phonon scattering. The Difference Fourier Transform approach. The use of optical diffractometry and optical convolution in the interpretation of imperfect crystals. Prerequisite: consent of instructor.

505-3 Physical Properties of Crystalline Materials. Thermal expansion, compressibility and magnetic and electrical properties in relation to crystal structure. Influence of temperature. Piroelectricity and piromagnetism. Ferroelectricity and ferroelectrics. Antiferroelectrics. Ferromagnetic crystals, Antiferromagnetics. Domain structures. Phase transitions. Ionic polarizabilities. Influence of temperature. Influence of structure in crystal optics. Molecular refractivity. Structural theory of optical activity. Elasticity and crystal structure. Piezoelectricity. Plastic deformation. Slip. Creep. Cleavage. Prerequisite: 464.

512-3 Introduction to Theoretical Elasticity. Tensor analysis in curvilinear coordinates, definitions of stress and strain, equations of elasticity and examples of their application in one and two dimensions. Prerequisite: consent of instructor.

513-3 Mechanics of Viscous Fluids. Theory of laminar viscous flows using the continuum

approach. The stress and rate-of-deformation tensors; exact solutions including slow motion and problems of the laminar boundary type. Introduction to hydrodynamic stability. Prerequisite: 414 or consent of instructor.

514-3 Mechanics of Inviscid Fluids. A study of stream functions, the velocity potential, Euler equations, Bernoulli equations, various solutions to Laplace's equation, added masses, Taylor theorem, Blasius and Lagally theorems, two-dimensional irrotational flows, Cauchy-Riemann equations, conformal mapping, vortex flow, thin airfoil theory, and free-streamline flows. Prerequisite: 414 or consent of instructor.

515-2 Wave Motion. Wave motion in strings and bars. Surface waves in liquids and solids. Sound waves, seismic waves. Method of characteristics and Fourier methods. Prerequisite: consent of instructor.

518-3 Introduction to Turbulence. Application of the basic equations of motion to turbulent flow problems. Reynolds equations; turbulence energy equations; description of the structure of turbulence; correlation and spectrum functions, macro, micro, and time scales; phenomenological theories; free shear and wall shear flows. Hot-wire anemometry; Laser Doppler anemometry. Prerequisite: 414 or equivalent or consent of instructor.

540-2 Elastic Stability. Bending of beam columns under simultaneous action of axial and lateral loads; buckling of compressed bars, frames, rings and arches; lateral buckling of beams; torsion of I beams; buckling of thin plates. Prerequisite: Mathematics 305 or 407 or consent of instructor.

542-2 Theory of Plates. Analysis of bending and vibration of plates of various shapes; energy method; complex variables method, linear and non-linear behavior; theory of bending of anisotropic and non-homogeneous plates. Prerequisite: Mathematics 305 or 407 or consent of instructor.

544-3 Advanced Design of Reinforced Concrete. Torsion. Yield-line theory. Columns in biaxial bending. Continuous beams and frames. Arch and shell roofs. Prestressed concrete. Prerequisite: 444 or consent of instructor.

550-3 Advanced Compressible Fluid Flow. Multidimensional compressible flow. Linearized equations of motion. Method of characteristics. Rarified gas dynamics. Hypersonic flow. Transonic flow. Prerequisite: 417 or equivalent.

561-3 Intermediate Vibrations. Lagrangian equations for several degrees of freedom, methods of finding natural frequencies, matrix methods, applications. Prerequisite: 441 or equivalent.

580-1 to 4 Seminar. Collective and individual study of selected issues and problems relating to various engineering areas. Prerequisite: graduate standing.

592-1 to 4 Special Investigations in Engineering. Advanced engineering topics and/or problems in (a) Stress Analysis, (b) Fluid Flow Analysis, (c) Structural Engineering, (d) Computational Mechanics, (e) Materials Engineering, and (f) Dynamics. Prerequisite: graduate standing and consent of instructor.

599-1 to 6 Thesis.

Thermal and Environmental Engineering

Graduate work in the Department of Thermal and Environmental Engineering is offered toward a concentration for the Master of Science degree in engineering. Safety glasses are required for some of the courses in this department. Four-hundred-level courses in this department may be taken for graduate credit unless otherwise indicated in the course description.

400-3 Power and Refrigeration Cycles. Use of engineering thermodynamics in analysis of power and refrigeration cycles. Detailed treatment of various gas and vapor power cycles including combined gas and steam cycles. Thermodynamics of combustion. Gas and vapor refrigeration cycles. First and Second Law analysis of turbo-machinery. Prerequisite: Engineering 300.

401-1 Thermal Measurements Laboratory. Study of basic physical measurements used in the thermal sciences. Calibration techniques for temperature sensors. Transient and steady-state error analysis. Thermal and transport property measurements. Prerequisite: Engineering 302.

402-3 Intermediate Heat Transfer. Analysis of forced convective momentum and heat exchange in tubes and over surfaces. Applications to heat transfer equipment design and processes. Prerequisite: Engineering 302.

404-3 Thermal Systems Optimization. Simulation and optimization of thermal energy conversion systems based on principles of thermodynamics, heat transfer, and fluid mechanics. Mathematical modeling of the performance of turbines, pumps, fans, mass and heat exchangers, etc., from analytical predictions and experimental results. Stochastic treatment of experimental data. Application of the principal optimization methods encountered in engineering practice. Prerequisite: Engineering 302, 361.

406-3 Thermal Systems Design. Application of the principles of engineering analysis to

the design of thermal systems. Consideration of such systems as refrigerators, building air conditioning systems, spacecraft control systems, solar heating systems, and gas liquefying systems. Prerequisite: Engineering 300, 302.

408-3 Energy Conserving Systems. Criteria for selecting alternative energy systems: amount of energy resources; overall efficiency of available energy utilization; effects of legal, societal, environmental and economic constraints upon the use of energy systems. Application of these criteria to systems utilizing renewable versus non-renewable energy sources. Emphasis on analysis and engineering design of energy conserving systems. Prerequisite: Engineering 302 and Engineering 361 or consent of instructor.

415-3 Wastewater Treatment. A study of the design equations used in physical, chemical, and biological treatment processes and comparison to design by state standards. Basics of bacteria and their metabolic processes in the degradation of organic wastes. Treatment and disposal of sludges produced in wastewater treatment. Advanced waste treatment processes; reuse of wastewater. Concurrent enrollment in 417 is recommended for students in thermal and environmental engineering option. Prerequisite: 314.

416-3 Air Pollution Control. Engineering control theory, procedures, equipment, and economics related to particulate and gaseous emissions control. The environmental impact of controlling emissions. Sampling and analysis procedures. Laboratory work includes design, construction, and use of a source sampling system. Safety glasses are required. Concurrent enrollment in 418 is recommended for students in thermal and environmental engineering option. Prerequisite: 314.

417-1 Water Quality Laboratory. Measurements of water quality parameters performed. Use of modern instrumental techniques demonstrated. Safety glasses are required. Prerequisite: 314.

418-1 Air Quality Laboratory. This laboratory consists of design, construction, and use of systems to measure and analyze ambient atmospheric pollution. Safety glasses required. Prerequisite: concurrent enrollment in 416.

423-3 Waste Heat Management. Energy sources and waste heat produced in their utilization. Management of heated surface water effluents to minimize their ecological impact; chemical, physical, and biological. Methods of waste heat disposal from electric power plants. Selection and design of waste heat disposal system. Prerequisite: 314, Engineering 300 or consent of instructor.

435-3 Heat and Mass Transfer Processes. Review of single phase and two phase heat transfer. Heat exchanger design. Mass transfer principles and processes. Processes involving simultaneous heat and mass transfer. Prerequisite: 302.

492-1 to 5 Special Problems in Engineering. Engineering topics and problems selected by either the instructor or the student with the approval of the instructor. Five hours maximum course credit. Prerequisite: senior standing and consent of instructor.

500-3 Advanced Engineering Thermodynamics. Principles of kinetic theory and classical statistical mechanics applied to thermodynamic systems. Statistical interpretation of the equilibrium state and thermodynamic properties of engineering systems. Introduction to irreversible thermodynamics with engineering examples. Prerequisite: Engineering 300.

501-3 Transport Phenomena. Mechanism of heat, mass, and momentum transport on both molecular and continuum basis. Estimation of transport properties. Generalized transport equations in one or three-dimensional systems. Analogy of mass, heat, and momentum transfer. Macroscopic balances, simultaneous mass, and heat transfer. Prerequisite: Engineering 302.

502-3 Advanced Heat Transfer. Engineering considerations involved in the construction of mathematical and numerical models and the interpretation of results of analyses of conduction and radiation heat transfer mechanisms. Prerequisite: Engineering 302.

510-3 Solid Waste Collection and Disposal. Basic concepts and theory of solid waste collection and disposal systems.

515-3 Advanced Biological Treatment Processes. The biochemical and microbial aspects of converting substrate to bacterial cell mass or products and its use in various phases of industry (both fermentation and wastewater treatment). Design of activated sludge and trickling filter plants from lab data obtained on explicit wastes from both industry and municipalities. Prerequisite: 415.

516-3 Water Resources Management. Water quality factors and control methods. Technical, economic, social, and legal aspects concerned with implementation of various engineered systems for water quality management. Case studies. Prerequisite: 415.

517-3 Industrial Waste Treatment. Theories and methods of treating industrial wastes. Case studies of major industrial waste problems and their solutions. Prerequisite: 415.

525-3 Small Particle Phenomena. Small particle formation, behavior, properties, emission, collection, analysis, and sampling. Includes atomization, combustion, transport of suspensions and sols, filtration, light scattering and movement patterns of mono and polydisperse particles and use of a device to measure size, size distribution, and one other physical property of an aerosol. Prerequisite: graduate standing.

531-4 Reaction Engineering and Rate Processes. Chemical kinetics of homogeneous

and heterogeneous reactions, kinetic theories, mechanism and mathematical modeling. Reactor design. Design of multiple reactions; temperature and pressure effects. Nonisothermal and nonadiabatic processes. Non-ideal reactors. Prerequisite: 435.

532-3 Separation Processes and Equilibrium Operations. Phase equilibrium, multi-stage calculations, graphical methods, unsteady-state stagewise operations. Multicomponent systems. Rate separation processes. Applications in processing industry. Prerequisite: 435.

580-1 to 4 Seminar. Collective and individual study of issues relating to thermal and environmental engineering. Four hours maximum course credit.

592-1 to 4 Special Investigations in Engineering. Advanced topics in thermal and environmental engineering. Topics are selected by mutual agreement of the student and instructor. Four hours maximum course credit. Prerequisite: consent of instructor and department chairman.

599-1 to 6 Thesis. Six hours maximum course credit.

Engineering Biophysics

492-1 to 5 (1 per semester) Colloquy in Engineering Biophysics I. Discussion of topics related to engineering biophysics; guest lecturers, field trips. Offered in spring semesters only. Required for undergraduate engineering biophysics majors. Mandatory Pass/Fail.

592-1 to 3 (1 per semester) Colloquy in Engineering Biophysics II. Discussion of topics related to engineering biophysics; guest lecturers, field trips. Offered in spring semesters only. Required for graduate students majoring in engineering biophysics. Graded S/U only.

598-1 to 6 Internship in Engineering Biophysics. The fifth year in the engineering biophysics program emphasizes course in physiology, psychology, and speech pathology and audiology. Those studies provide a basis for the internships in selected hospitals and in laboratories in industry and government. The internship is a requirement for completing the graduate program and might well be accomplished in the summer session of the graduate year.

599-1 to 6 Thesis.

Engineering Technology

There is no graduate program offered through engineering technology. Four-hundred-level courses in this listing may be taken for graduate credit unless otherwise indicated in the course description.

The student is required to purchase photographs and maps for certain courses, and a suitable slide rule is strongly recommended for most courses. Cost is approximately \$10.00 to \$25.00.

403-8 (4, 4) Electronics Technology. (a) Fundamental theory and operation of semiconductor diodes and bipolar transistors, incremental models for transistors, biasing, stability, and feedback of single and multistage amplifiers. Parameters and applications of field-effect transistors, opto-electronic devices, thyristors, unijunction transistors and amorphous semiconductors. Laboratory. (b) Parameters and applications of operational amplifiers, linear integrated circuits, monolithic voltage regulators, and digital integrated circuits. Laboratory. Must be taken in a,b sequence. Prerequisite: 304b.

415-4 Elementary Structural Design. Introduction to structural properties of steel and reinforced concrete. Design of basic steel elements: tension members, beams, columns, and connections. Basic design of reinforced concrete elements: beams, columns, and footings. Use of AISI and ACI codes. Prerequisite: 311 (or concurrent enrollment), 315.

424-6 (3, 3) Power Systems Technology. (a) Fundamentals of basic power plant operation and equipment; e.g., fuels, steam generators, heat exchangers, turbines, pumps, and nuclear reactors. Prerequisite: 313a. (b) A study of cycles, heat balances, efficiencies and power plant economics. Student is exposed to the design considerations and trade-offs associated with the total design of power plant. Prerequisite: 313b, 318b, 424a.

426-4 (2, 2) Photogrammetry. (a) Cameras and photography; flight planning; mathematical principles of vertical and tilted aerial photographs, ground control methods; extension of control; stereoscopy and parallax; basic instruments, stereo plotters, and latest tilted photographs; stereoscopic plotting instruments; principles and use of oblique photography; analytic photogrammetry and new concepts. Laboratory. Prerequisite: 426a or consent of instructor.

437-6 (3, 3) Communications Systems Technology. (a) Radio-frequency transmission-line theory. Electromagnetic fields in rectangular and circular waveguides. Laboratory. Prerequisite: 304b. (b) Communication systems with a unified treatment of various types of

transmission systems with emphasis on the role of system bandwidth and noise in limiting the transmission of information. Laboratory. Prerequisite: 403a, 437a.

438-8 (4, 4) Design of Control and Digital Systems. (a) Fundamentals of control systems; equations of electrical, mechanical, hydraulic, and thermal systems; applications of Laplace transforms, transfer functions, block diagrams and flowgraphs. Computer implemented graphical analysis and design methods: root locus, frequency response, Nyquist diagrams, and compensator design. Continuous-systems simulation laboratory. Prerequisite: 304b, Engineering 222. (b) Design of digital systems; logic operations; number systems and applications. Digital systems simulation laboratory. Prerequisite: Engineering 222.

439-3 Microprocessor Applications and Hardware. A study of microprocessor applications and hardware based on microprocessor manufacturer's literature. System configuration, hardware, requirements, typical instruction set, programming, input/output techniques, interfaces, and peripheral devices. Prerequisite: 438B or concurrent enrollment.

492-1 to 6 Special Problems in Industry and Technology. Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected technical problems. Prerequisite: consent of instructor.

English

400-3 Introduction to English Linguistics. Methods of structuralizing: phonetics, phonemics, morphemics, syntax. Especially recommended for students preparing to teach English to native speakers. Elective Pass/Fail.

403-3 History of the English Language. A survey of the development of the language from Indo-European to modern English with special emphasis on Middle and Early Modern changes. Elective Pass/Fail.

404-3 Middle English Literature Excluding Chaucer. Elective Pass/Fail.

405-3 Middle English Literature: Chaucer. Elective Pass/Fail.

412-3 English Non-Dramatic Literature: The Renaissance. Elective Pass/Fail.

413-3 English Non-Dramatic Literature: The Restoration and Earlier Eighteenth Century. Elective Pass/Fail.

414-3 English Non-Dramatic Literature: The Later Eighteenth Century. Elective Pass/Fail.

417-3 Black Literature. Studies in American and African Black literature, with major emphasis upon contemporary Black expression. Elective Pass/Fail.

421-3 English Romantic Literature. Elective Pass/Fail.

422-3 Victorian Poetry. Victorian poets: Tennyson, Browning, Arnold, and other poets in England. Elective Pass/Fail.

423-3 Modern British Poetry. Elective Pass/Fail.

425-3 Modern Continental Poetry. Representative poems by major 20th century poets of France, Italy, Germany, Spain, Russia, and Greece. Elective Pass/Fail.

426-3 American Poetry to 1900. Trends in American poetry to 1900 with a critical analysis of the achievement of the more important poets. Elective Pass/Fail.

427-3 American Poetry from 1900 to the Present. The more important poets since 1900. Elective Pass/Fail.

436-3 to 9 (3 per topic) Major American Writers. Significant writers of fiction and nonfictional prose from the Puritans to the 20th Century. May be repeated only if topic varies, and with consent of department. Elective Pass/Fail.

438-3 Intellectual Backgrounds of American Literature. The relationship of basic ideas in American to American literature. Elective Pass/Fail.

445-3 Cultural Backgrounds of Western Literature. A study of ancient Greek and Roman literature, Dante's *Divine Comedy*, and Goethe's *Faust*, as to literary type and historical influence on later Western writers. Elective Pass/Fail.

451-3 Eighteenth Century English Fiction. Defoe through Jane Austen. Elective Pass/Fail.

452-3 Nineteenth Century English Fiction. Victorian novel: 1830-1880. Elective Pass/Fail.

453-3 Modern British Fiction. Elective Pass/Fail.

455-3 Modern Continental Fiction. Selected major works of European authors such as Mann, Silone, Camus, Kafka, Malraux, Hesse. Elective Pass/Fail.

458-3 American Fiction to the Twentieth Century. The novel in America from its beginnings to the early 20th Century. Elective Pass/Fail.

459-3 American Fiction of the 20th Century. Trends and techniques in the American novel and short story since 1914. Elective Pass/Fail.

460-3 Elizabethan and Jacobean Drama. Elizabethan drama excluding Shakespeare: such Elizabethan playwrights as Green, Peele, Kyd, Marlowe, Heywood, Dekker; and Jacobean drama: such Jacobean and Caroline playwrights as Jonson, Webster, Marston, Middleton, Beaumont and Fletcher, Massinger, Ford, Shirley. Elective Pass/Fail.

- 462-3 English Restoration and 18th Century Drama.** After 1660, representative types of plays from Dryden to Sheridan. Elective Pass/Fail.
- 464-3 Modern British Drama.** Elective Pass/Fail.
- 465-3 Modern Continental Drama.** The continental drama of Europe since 1870; representative plays of Scandinavia, Russia, Germany, France, Italy, Spain, and Portugal. Elective Pass/Fail.
- 468-3 American Drama.** The rise of the theater in America, with readings of plays, chiefly modern. Elective Pass/Fail.
- 471-3 Shakespeare: The Early Plays, Histories, and Comedies.**
- 472-3 Shakespeare: The Major Tragedies, Dark Comedies, and Romances.**
- 473-3 Milton.** A reading of a selection of the minor poems, of *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, and the major treatises. Elective Pass/Fail.
- 481-3 Literature for the Adolescent.** Criteria for evaluation of literary materials for junior and senior high school, with emphasis on critical approaches in selection of literature. Elective Pass/Fail.
- 484-3 Non-Print Media and English.** Theory and application of film and other nonprint media to the study and teaching of English. Especially emphasized is the relationship between print and non-print communications systems and verbal and non-verbal systems. Prerequisite: consent of instructor.
- 485-3 Problems in Teaching Composition, Language, Literature and Reading in High School.**
- 491-3 Expository Technical Writing.** An all-university course designed to teach advanced academic and professional (non-fictional) writing skills. Prerequisite: GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
- 492-3 to 9 Creative Writing: Senior Writing Project.** The topic varies among the writing of poetry, drama, or prose. A directed written project will be submitted at the end of the semester in prose, poetry, or drama. A collection of short stories or poems, a novel or play of what instructors consider to be acceptable quality will fulfill the Senior Project requirement. An alternative may be an internship in a publishing firm if appropriate arrangements can be made by the department. Prerequisite: consent of instructor. Elective Pass/Fail.
- 493-3 to 9 (3 per topic) Special Topics in Literature and Language.** Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies. Prerequisite: consent of instructor. Elective Pass/Fail.
- 495-3 Literary Criticism.** Includes both history of criticism and modern criticism. Open only to seniors and graduate students. Elective Pass/Fail.
- 497-3 to 9 (3 per topic) Senior Honors Seminar.** Topics vary yearly. May be repeated as the topic varies. Prerequisite: departmental approval and undergraduate status.
- 499-1 to 6 (1 to 3, 1 to 3) Readings in Literature and Language.** For English majors only. Prior written departmental approval required. May be repeated as the topic varies, up to the maximum of six semester hours.
- 500-2 Materials and Methods of Research in Literature.**
- 501-3 Old English Grammar.**
- 502-3 Beowulf.**
- 503-3 Old Norse.**
- 504-3 to 9 (3 per topic) Studies in Middle English Literature.** May be repeated only if the topic varies, and with consent of the department.
- 505-3 to 9 (3 per topic) Studies in Chaucer.** May be repeated only if the topic varies, and with consent of the department.
- 511-3 to 9 (3 per topic) Studies in Sixteenth Century English Non-Dramatic Literature.** May be repeated only if the topic varies, and with consent of the department.
- 512-3 to 9 (3 per topic) Studies in Seventeenth Century English Non-Dramatic Literature.** May be repeated only if the topic varies, and with consent of department.
- 513-3 to 9 (3 per topic) Studies in English Literature of the Restoration.** May be repeated only if the topic varies, and with consent of the department.
- 514-3 to 9 (3 per topic) Studies in Eighteenth Century English Literature.** May be repeated only if the topic varies, and with consent of the department.
- 518-3 to 9 (3 per topic) Studies in British Literature, 1885 to 1914.** May be repeated only if the topic varies, and with consent of department.
- 519-3 to 9 (3 per topic) Studies in British Literature since 1914.** May be repeated only if the topic varies, and with consent of department.
- 521-3 to 9 (3 per topic) Studies in English Romantic Writers.** May be repeated only if the topic varies, and with consent of department.
- 522-3 to 9 (3 per topic) Studies in Victorian Poets.** May be repeated only if the topic varies, and with consent of department.
- 524-3 Studies in the Metaphysical Poets.**
- 535-3 to 9 (3 per topic) Studies in American Transcendentalism.** May be repeated only if the topic varies, and with consent of department.
- 536-3 to 9 (3 per topic) Studies in Early Nineteenth Century American Writers.** May be repeated only if the topic varies, and with consent of the department.

- 537-3 to 9 (3 per topic) Studies in Later Nineteenth Century American Writers.** May be repeated only if topic varies, and with consent of department.
- 538-3 to 9 (3 per topic) Studies in Twentieth Century American Writers.** May be repeated only if the topic varies, and with consent of department.
- 543-3 to 9 (3 per topic) Studies in Victorian Non-Fiction Prose.** May be repeated only if the topic varies, and with consent of department.
- 552-3 to 9 (3 per topic) Studies in the Victorian Novel.** May be repeated only if the topic varies, and with consent of department.
- 560-3 to 9 (3 per topic) Studies in the English Renaissance Drama.** May be repeated only if the topic varies, and with consent of department.
- 571-3 to 9 (3 per topic) Studies in Shakespeare.** May be repeated only if the topic varies, and with consent of department.
- 579-3 to 12 (3 per topic) Studies in Modern Literature.** May be repeated only if the topic varies, and with consent of department.
- 580-3 Traditional Themes in Literature.**
- 581-3 to 9 (3 per topic) Problems in Teaching English.** May be repeated only if the topic varies, and with consent of department.
- 585-2 Teaching College Composition.**
- 593-3 to 9 (3 per topic) Special Topics in Literature and Language.** May be repeated only if the topic varies, and with consent of department.
- 595-1 to 9 Independent Readings.** Preparatory for preliminary examinations for doctoral students in English. May be taken once only, grade of *S/U*, according to the result of the preliminary examination. Prerequisite: twenty-four classroom credit hours beyond the M.A., exclusive of audits and readings.
- 596-3 Stylistics.** (Same as Linguistics 596.) This course defines style and its workings throughout literary history, applies the methods of modern analyses to literary works in English, shows how natural and artificial modes (genre and period definitions, metre, etc.) relate to literary artifacts and to the situation of the work of art vis-a-vis the civilization that engendered it.
- 600-1 to 36 (1 to 16 per semester) Dissertation.**

Foreign Languages and Literatures

- 436-3 Methods in Teaching Modern Foreign Languages.** Survey of general principles of second-language teaching, based upon sights of modern linguistics and learning-psychology. Followed by intensive practical work in classroom and language laboratory with teachers experienced in the student's specific language field. Required of prospective teachers of modern foreign languages in secondary schools. Prerequisite: concurrent or prior enrollment in 300-level course in French, German, Russian, or Spanish. Elective Pass/Fail.
- 437-1 to 6 Workshop in High School Foreign Language Instruction.** Familiarizes high school teachers with recent curricular developments in foreign language teaching with emphasis on practical classroom application of instructional innovations. Prerequisite: 436 or consent of instructor. Elective Pass/Fail.
- 506-1 to 4 Research Problems — French.** Individual research on a literary or linguistic problem involving original investigation in areas not covered by seminars or thesis. Two hours may be used for a research paper for non-thesis programs.
- 507-1 to 4 Research Problems — German.** Individual research on a literary or linguistic problem involving original investigation in areas not covered by seminars or thesis. Two hours may be used for a research paper for non-thesis programs.
- 508-1 to 4 Research Problems—Russian.** Individual research on a literary or linguistic problem involving original investigation in areas not covered by seminars or thesis. Two hours may be used for a research paper for non-thesis programs.
- 509-1 to 4 Research Problems—Spanish.** Individual research on a literary or linguistic problem involving original investigation in areas not covered by seminars or thesis. Two hours may be used for a research paper for non-thesis programs.
- 535-2 Critical Theory.** Theories of literature and theories underlying literary criticism, taken logically rather than chronologically. Extensive reading, in the original language whenever possible, of both primary statements and exemplificative documents.
- 566-2 Bibliography and Research Techniques—French.** Bibliography and research methods in the target language and its culture. Introduction to the use of the chief reference works in the humanities and social sciences as they deal with areas in which the target language is spoken.
- 567-2 Bibliography and Research Techniques—German.** Bibliography and research methods in the target language and its culture. Introduction to the use of the chief reference works in the humanities and social sciences as they deal with areas in which the target language is spoken.
- 568-2 Bibliography and Research Techniques—Russian.** Bibliography and research

methods in the target language and its culture. Introduction to the use of the chief reference works in the humanities and social sciences as they deal with areas in which the target language is spoken.

569-3 Bibliography and Research Techniques—Spanish. Bibliography and research methods in the target language and its culture. Introduction to the use of the chief reference works in the humanities and social sciences as they deal with areas in which the target language is spoken.

Chinese

No graduate program in Chinese is offered through the Eastern Languages and Civilization section. Four-hundred-level courses in this section may be taken for graduate credit unless otherwise indicated in the course description.

410-3 The Linguistic Structure of Chinese. (Same as Linguistics 411.) Phonology and syntax of Mandarin Chinese. Principal phonological features of major Chinese dialects. Special emphasis on the contrastive analysis between Mandarin Chinese and English. Theoretical implications of Chinese syntax for current linguistic theories. Prerequisite: one year of Chinese or introduction to linguistics. Elective Pass/Fail.

Classical Studies

No graduate program is offered through the Classical Studies section. Four-hundred-level courses in this section may be taken for graduate credit unless otherwise indicated in the course description.

405-2 Greek Literature in Translation. Reading and analysis of selected Classical Greek author(s), genre(s), theme(s), such as the role of woman, the social life of the ancient Greeks', etc. Students taking the course for graduate credit will do a critical study of one aspect. Elective Pass/Fail.

406-2 Latin Literature in Translation. Reading and analysis of selected Roman author(s), genre(s), theme(s). Students taking the course for graduate credit will do a critical study of one aspect. Elective Pass/Fail.

441-3 Themes in Greek Tragedies and the New Testament. (Same as Religious Studies 441.) Greek tragedies and New Testament passages from the Synoptic Gospels and the Letters of Paul showing similarities and differences in their treatment of such themes as freedom, law, love, and justice. Not for graduate credit. Prerequisite: 270, 332 or 405 or GSC 330, or 231 and GSC 217 or consent of instructor. Elective Pass/Fail.

496-2 to 8 (2 to 4) Independent Study in Classical Studies Program. (Same as Anthropology 376, History 396, Philosophy 496, Religious Studies 496.) Normally taken in course of junior and senior years to a total of at least four hours under a professor participating in Classical Studies Program (Anthropology, Classical Studies, History, Philosophy, or Religious Studies). At end of advanced level work, student will submit a research paper. Not for graduate credit. Prerequisite: consent of instructor and Classical Studies section head. Elective Pass/Fail.

French

Courses numbered 288 are designed to help graduate students prepare for proficiency examination required by certain departments as evidence of competency in French. No prerequisite is stipulated. Students must register for these courses and are advised to take them as part of, not in addition to, their graduate program. Students will not receive graduate credit for courses numbered below 400.

288-6 (3, 3) French as a Research Tool. Reading of French texts with emphasis on grammar as a tool for reading comprehension; development of reading skills in various fields; humanities, social studies, science; development of interpretive and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college French or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

410-3 Individualized Language Study. Treatment of problems concerning grammar, idioms, vocabulary, and other language skills in units tailored to the particular needs of the individual advanced level students enrolled in the course. Exercises in writing, understanding, and speaking will be offered with emphasis placed on the active use of the language which the student may need in present or future activities or careers. Elective Pass/Fail.

411-3 Contrastive Analysis: French and English. Study of the phonology, morphology, and syntax of modern spoken and written French, stressing interference areas for English speakers in learning French. Elective Pass/Fail.

412-3 History of the French Language. A survey of the phonological and morphological

changes from Latin through Vulgar Latin and Old French to Modern French; study of an original Old French text, such as the *Chanson de Roland* or a romance of Chretien de Troyes. Knowledge of Latin not required. Elective Pass/Fail.

415-3 Literary Stylistics. A study of the aesthetics and theory of French literary expression. Disciplined stylistic analyses of excerpts from representative works of great French authors. Appreciation of distinctive qualities of each writer's genius. Consideration is given to various stylistic methods. Elective Pass/Fail.

420-3 Medieval and Renaissance Literature. Study of the origins of French literature emphasizing the *Chanson de Roland*, *Tristan*, other courtly romances, and the lyric poetry of Villon, culminating with an examination of the development of the humanistic ideas and ideals of the French Renaissance. Elective Pass/Fail.

430-4 Baroque and Classicism. An in-depth examination of artistic and social writings of baroque and classical literary figures such as Corneille, Racine, Moliere, La Fontaine, Descartes, Pascal, Mme de LaFayette, La Bruyere, and La Rochefoucauld. Discussion, reports, papers. Elective Pass/Fail.

440-3 Literature of the Enlightenment. Study and discussion of the novel, theater, and philosophic writing of 18th century France as literature and as expressions of the Enlightenment. Major attention given to Montesquieu, Voltaire, Diderot, and Rousseau. Elective Pass/Fail.

450-4 Literary Movements of the 19th Century. Romanticism, Realism, and Naturalism in the novel and theater followed by an examination of the reaction to these movements and of the influence of symbolism. Elective Pass/Fail.

460-4 Studies in Literature of the 20th Century. Examination of the major themes, forms, techniques, and style of novelists from Gide and Proust to Robbe-Grillet and dramatists from Giraudoux to Ionesco and Beckett. Elective Pass/Fail.

470-3 Backgrounds of French Civilization. A study of the events, figures, and movements in France which have influenced her culture and civilization. Elective Pass/Fail.

475-1 to 3 Travel-Study in France. Travel-study project, planned under supervision of French faculty and carried out in France. Amount of credit depending on scope of study. Elective Pass/Fail.

490-1 to 3 Advanced Independent Study in French. Individual exploration of some question, author, or theme of significance within the field of French literature, language or culture.

501-1 to 3 Seminar on a Selected Topic or Author. Intensive study of one author or topic.

520-1 to 3 Literature of the Middle Ages. A study of selected genres, authors, seen against the background of the political realities and the philosophical currents of the Middle Ages.

530-1 to 3 Literature of the Renaissance. A study of selected authors, literary movements, and expressions of philosophical thoughts of the Renaissance.

536-1 Teaching French at the College Level. Prepares graduate students in French for teaching at the college level. Required of all teaching assistants, in French. May not be counted to satisfy secondary certification requirements.

539-1 to 3 Literature of the 17th Century. Collaborative research in selected works of neo-classical French authors. Lectures, reports, discussions, paper.

540-1 to 3 Literature of the 18th Century. Selected topics, movements, or authors in the literature of the 18th Century.

550-1 to 3 Literature of the 19th Century. Selected topics, movements, or authors in the literature of the 19th Century.

560-1 to 3 Literature of the 20th Century. Study of an author, theme, movement, or critical literary issue of contemporary interest. Topics may range from the Existentialist vision or the Quest for Self to the novel of commitment of the New Novel.

599-1 to 6 Thesis.

German

Courses numbered 288 are designed to help graduate students prepare for proficiency examination required by certain departments as evidence of competency in German. No prerequisite is stipulated. Students must register for these courses and are advised to take them as part of, not in addition to, their graduate program. Students will not receive graduate credit for courses numbered below 400.

288-6 (3, 3) German as a Research Tool. (a) Practice in recognizing and interpreting most frequent grammatical patterns and basic vocabulary necessary for reading knowledge of German; (b) concentrated training in translation of specialized literature in student's discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college German or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

- 401-3 Survey of German Literature Beginnings to 1780.** Readings, lectures, discussions, reports, and research projects on major German figures and movements from the Middle Ages through the Enlightenment. Prerequisite: 330. Elective Pass/Fail.
- 412-3 Contrastive Analysis: German and English.** Contrastive study of German and English, in terms of speech sounds and grammatical structures. Designed particularly to help teachers of German diagnose and remedy the problems encountered by English speaking students of German. Prerequisite: 320b or consent of instructor. Elective Pass/Fail.
- 413-3 History of the German Language.** Survey of the development of German from its beginnings to the present day, with attention to dialects and "daughter languages" (including Dutch, Yiddish, Afrikaans). Elective Pass/Fail.
- 416-3 Fourth Year Grammar and Composition.** Designed to improve language skills beyond the level of 320. Extensive practice in spoken and written German. Prerequisite: 320b or consent of instructor. Elective Pass/Fail.
- 438-1 Diction for Teachers of German.** Designed to correct residual pronunciation deficiencies for students planning to become teachers of German. While improving their own pronunciation, students are also made aware of the practical techniques of teaching correct German pronunciation to Americans. Elective Pass/Fail.
- 445-4 Age of Goethe.** Intensive and extensive study of the authors, works, and movements of the period spanned by Goethe's life (1749-1832). Lectures, reports. Conducted in German. Prerequisite: 330 or consent of instructor. Elective Pass/Fail.
- 450-3 19th Century German Literature.** German literature from the late romanticists to the naturalists and impressionists. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass-Fail.
- 465-3 German Theater Today.** Plays performed in German-speaking countries at the present. The role of the theater in German culture. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass/Fail.
- 485-2 German Lyric Poetry.** Development of German lyric poetry from Klopstock and Burger to the present. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass/Fail.
- 490-1 to 6 (1 to 3, 1 to 3) Independent Study in German.** Project-study under supervision of German faculty. Amount of credit depends on scope of study. May be repeated as the topic varies, up to the maximum of six semester hours. Prerequisite: senior or graduate standing and approval of supervising instructor.
- 493-3 to 9 (3 per topic) Seminars in Special Topics in Literature and Language.** Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies. Primarily for undergraduates. Prerequisite: consent of instructor. Elective Pass/Fail.
- 501-2 to 4 (2, 2) Seminar in Literature, Culture, or Folklore.** Intensive study of a selected topic in German literature, culture, or folklore. Revolving subject matter; may be repeated once, for a total of four semester hours.
- 502-2 to 4 (2, 2) Seminar in Germanic Linguistics.** Intensive study of a selected topic in historical or descriptive Germanic linguistics. Revolving subject matter; may be repeated once, for a total of four semester hours. Prerequisite: 413 or consent of instructor.
- 510-3 Middle High German.** Grammar of Middle High German, relation of Middle High German to modern German, and selected readings (in original) from the *Nibelungenlied*, courtly epic and lyric poetry, and didactic prose.
- 512-2 Historical Germanic Dialects.** Gothic or Old High German; grammar, etymology, introduction to methods of historical linguistics, and careful reading of representative texts. Prerequisite: 413 or consent of instructor.
- 536-1 Teaching German at the College Level.**
- 560-3 German Literature at the Turn of the 20th Century.** The convergence and revival of different literary movements and traditions during the heyday of German Imperialism. Taught in German.
- 561-3 Modern German Novel.** German novel in the 19th and 20th centuries. Conducted in German.
- 586-3 Das Komische.** *Das Komische* in different periods of German literature and culture. Conducted in German.
- 590-3 to 9 (3 per topic) Independent Study on Special Topics in Literature and Language.** May be repeated only if the topic varies, and with consent of department.
- 599-1 to 6 Thesis.**

Greek

No graduate program in Greek is offered through the Classical Studies section. Four-hundred-level courses in this section may be taken for graduate credit unless otherwise indicated in the course description.

415-2 to 6 (2 to 4 per semester) Readings from Greek Authors. Reading and interpretation of works in Greek not covered in other courses. Maximum of six semester hours toward program. Not for graduate credit. Prerequisite: 201 or equivalent. Elective Pass/Fail.

Japanese

No graduate program in Japanese is offered through the Eastern Languages and Civilization section. Four-hundred-level courses in this section may be taken for graduate credit unless otherwise indicated in the course description.

410-3 The Linguistic Structure of Japanese. (Same as Linguistics 412.) Phonology and syntax of the Standard Japanese. Special emphasis on the contrastive analysis between Japanese and English. Typological similarities and lexical borrowings between Chinese and Japanese. Prerequisite: one year of Japanese or introduction to linguistics. Elective Pass/Fail.

Latin

No graduate program in Latin is offered through the Classical Studies section. Four-hundred-level courses in this section may be taken for graduate credit unless otherwise indicated in the course description.

Courses numbered 288 are designed to help graduate students prepare for proficiency examination required by certain departments as evidence of competency in Latin. No prerequisite is stipulated. Students must register for these courses and are advised to take them as part of, not in addition to, their graduate program. Students will not receive graduate credit for courses numbered below 400.

288-6 (3, 3) Latin as a Research Tool. Intensive course designed to impart grammar and vocabulary necessary for a reading knowledge of the language. Also to serve as a review for people who have had some Latin. Development of interpretive and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Open to graduates and undergraduates.

415-2 to 6 (2 or 3, 2 or 3, 2 or 3) Readings from Latin Authors. Flexible reading program of works not covered in other courses. Not for graduate credit. Prerequisite: 201 or equivalent. Elective Pass/Fail.

Russian

No graduate program is offered through the Russian section. (See Chapter 2 for Russian as a teaching specialty for the Master of Science in Education degree in secondary education or in higher education.) Four-hundred-level courses in this section may be taken for graduate credit unless otherwise indicated in the course description.

Courses numbered 288 are designed to help graduate students prepare for proficiency examination required by certain departments as evidence of competency in Russian. No prerequisite is stipulated. Students must register for these courses and are advised to take them as part of, no in addition, to their graduate program. Students will not receive graduate credit for courses numbered below 400.

288-6 (3, 3) Russian as a Research Tool. Reading of Russian articles with emphasis on grammar as a tool for reading comprehension; development of reading skills in various fields: humanities, social studies, science; development of interpretive and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college Russian or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

411-3 Russian Stylistics. Writing style in Russian and its application to the development of skill in written expression. Prerequisite: 310 or 320 or equivalent. Elective Pass/Fail.

415-3 Russian Linguistic Structure. Structural analysis of present-day Russian with special attention to morphology and syntax. Elective Pass/Fail.

430-4 Business Russian. A study of the style of commercial language and its application to the development of skill in business correspondence, such as: inquiries, offers, orders, contracts, agreements, as well as documents concerning transport, insurance, and customs. Prerequisite: 201 or 278 or equivalent. Elective Pass/Fail.

465-3 Soviet Russian Literature. Major fiction writers and literary trends since 1917. Lectures, readings, and reports. Prerequisite: 310 or equivalent. Elective Pass/Fail.

470-3 Soviet Civilization. Present day political, economic, and social institutions of the

Soviet Union. Readings from contemporary news media. No previous knowledge of Russian required. Elective Pass/Fail.

475-2 to 3 Travel-Study in USSR. Specialized course comprising part of the travel-study program in the Union of Soviet Socialist Republics. Prerequisite: 201 or equivalent. Elective Pass/Fail.

480-4 Russian Realism. Authors in 19th century Russian literature. Special attention to stylistic devices. Lectures, readings, and individual class reports. Prerequisite: 310 or equivalent. Elective Pass/Fail.

485-3 Russian Poetry. A study of literary trends and representative works of Russian poets. Prerequisite: 310 or equivalent. Elective Pass/Fail.

490-1 to 3 Independent Study. Directed independent study in a selected area. Prerequisite: consent of the Russian section head. Elective Pass/Fail.

501-2 Seminar on a Selected Russian Author. Intensive study of one author, his life, his work, and his place in the literary and cultural development of civilization.

502-2 Seminar in Contemporary Russian Literature. Intensive study of the works of representative Russian authors, with special reference to the correlation existing between literary expression and social, economic, and political conditions since the Revolution. Lectures, outside readings, reports are required.

514-3 History of the Russian Language. A survey of the phonological, morphological, and syntactical changes from the period of the common Slavic to the present Russian literary language.

599-1 to 6 Thesis.

Spanish

Courses numbered 288 are designed to help graduate students prepare for proficiency examination required by certain departments as evidence of competency in Spanish. No prerequisite is stipulated. Students must register for these courses and are advised to take them as part of, not in addition to, their graduate program. Students will not receive graduate credit for courses numbered below 400.

288-6 (3, 3) Spanish as a Research Tool. (a) Basic grammatical structure and vocabulary necessary to a reading knowledge of the language; (b) finalizes translation skills in the student's discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college Spanish or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

410-3 Romance Philology. Historical and comparative study of the major Romance languages: their phonology, morphology, and syntax. Elective Pass/Fail.

412-3 Advanced Grammar and Composition. Designed to improve language skills beyond the level of 320. Elective Pass/Fail.

415-3 The Linguistic Structure of Spanish. Phonology and grammatical structure of Spanish. Examination of the features of the principal dialects. Required of all majors. Elective Pass/Fail.

417-3 History of the Spanish Language. Survey of internal and external history, from Vulgar Latin to Modern Spanish. Elective Pass/Fail.

430-3 The Golden Age: Drama. Plays of Lope de Vega, Calderón, Tirso de Molina, and others. Elective Pass/Fail.

431-3 Cervantes. *Don Quixote*. Elective Pass/Fail.

434-2 Colonial Literature in Spanish America. Study of the literature of Spanish America before 1825. Elective Pass/Fail.

450-3 Spanish Literature of the 19th Century. Study of significant literary works of the periods of Romanticism and Realism in Spain. Elective Pass/Fail.

460-4 Spanish Literature of the 20th Century. The main currents and outstanding works in the literature of Spain since 1900. Elective Pass/Fail.

485-4 (2, 2) The Spanish American Short Story. Survey of the genre in Spanish America. (a) From the beginnings through the 19th Century. (b) The 20th Century. Elective Pass/Fail.

486-2 Spanish American Drama. A survey of the development of the genre from the earliest times to the present. Elective Pass/Fail.

487-4 (2, 2) The Spanish American Novel. Survey of the genre in Spanish America. (a) From the beginnings to 1940. (b) From 1940 to the present. Elective Pass/Fail.

488-3 Spanish American Poetry from Modernism to the Present. Survey of the genre from the late 19th century up to the present. Elective Pass/Fail.

490-1 to 3 Readings in Spanish. Directed independent readings in a selected area. Prerequisite: consent of department. Elective Pass/Fail.

502-3 to 6 (3, 3) Seminar in Hispanic Linguistics. Involves intensive study of a selected topic.

- 503-3 to 6 (3, 3) Seminar in Peninsular Spanish Literature.** Intensive study of a selected topic.
- 504-3 to 6 (3, 3) Seminar in Spanish-American Literature.** Intensive study of a selected topic.
- 521-3 Medieval Spanish Literature.** Studies in epic and didactic literature, and lyric poetry.
- 530-2 to 4 (2, 2) Spanish Literature of the Renaissance and Golden Age.** Intensive study of literary movement, trend, genre, or author of the period, as specified by the topic to be announced for each semester.
- 535-2 to 4 (2, 2) Spanish American Literature before 1900.** Intensive study of a literary movement, trend, genre, or author of the period, as specified by the topic to be announced for each semester.
- 540-2 to 4 (2, 2) Spanish Literature of the 18th and 19th Centuries.** Intensive study of a literary movement, trend, genre, or author of the period, as specified by the topic to be announced for each semester.
- 560-2 to 4 (2, 2) Spanish Literature of the 20th Century.** Intensive study of a literary movement, trend, genre, or author of the period, as specified by the topic to be announced for each semester.
- 565-3 to 6 (3, 3) Spanish American Literature of the 20th Century.** Intensive study of a literary movement, trend, genre, or author of the period, as specified by the topic to be announced for each semester.
- 599-1 to 6 Thesis.**

Forestry

Courses in this department may require the purchase of supplemental materials. Field trips are required for certain courses.

- 401-3 Fundamentals of Environmental Education.** (See Agriculture 401.)
- 405-2 Forest Management for Wildlife.** Interrelations between forest practices and wildlife populations. Emphasis is on habitat requirements of different wildlife species and ways to manipulate the forest to improve wildlife habitats. Prerequisite: forestry major, or consent of instructor.
- 409-4 Forest Resources Decision-Making.** Examines management planning decision-making for multiple-use forests, particularly in the public sector. Reviews concepts useful for analyzing flow-resource problems, emphasizing systems approaches, introduces use of modern quantitative methods to evaluate resource use alternatives. Case studies. Prerequisite: 410.
- 410-3 Forest Resources Administration and Policy.** Nature of administrative organizations and influences on behavior of organization members. Society influences causing changes in forestry related organizations. Policy formation and implementation, including roles of special interest groups. Prerequisite: 301.
- 411-3 Forest Resources Economics.** Introduction to forest economics: Application of micro- and macro-economics principles to forest timber and non-timber production; capital theory; benefit-cost analysis; and economics of conservation. Prerequisite: Agricultural Industries 204 or Economics 215.
- 412-2 Tree Improvement.** Basic theories and techniques of obtaining genetically superior trees for forest regeneration. Prerequisite: senior standing.
- 414-3 Information Management.** The collection of physical, biological, and social variables in the field of forestry through sampling survey. The procedures of data manipulation and calculation and the presentation of graphs and tables.
- 416-3 Forest Resource Management.** The application of business procedures and technical forestry principles to manage forest properties. Emphasis on integrated resource management for tangible and intangible benefits. Field trips and supplemental purchases approximately \$25.00 per student. Prerequisite: summer camp or consent of instructor.
- 417-2 Forest Land-Use Planning.** Principles of location theory as a basis for determining land use; supply of forest land; population pressure and demand; conservation principles; determination of forest land values; institutional factors influencing forest land-use; forest taxation; special taxes, and capital gains. Taught in alternate years. Prerequisite: 411 or consent of instructor.
- 418-2 Marketing of Forest Products.** The role of marketing in the forest industries; review of economic principles; product policy, planning the product line, pricing, marketing channels, marketing problems, marketing organization, and marketing research as influences on the marketing of lumber, wood products, pulp, and paper. Taught in alternate years. Prerequisite: 411 or consent of instructor.
- 420-3 Park and Wildlands Management.** The management of state and federal parks

and recreation areas. A systems approach toward management and decision-making will be emphasized. Requires supplemental purchases of approximately \$5.00 per student. Prerequisite: 320C or 422T.

421-3 Recreation Land-Use Planning. Principles and methods for land-use planning of park and recreation environments with emphasis on large regional parks. Focus on planning process and types of information to gather and organize. Application in group field projects. Prerequisite: 350, 450 or consent of instructor.

422T-2 Park and Wildlands Management—Field Trip. A study of park conditions, visitors, and management practices at selected county, state, and federal park systems in the United States. Course requires a field trip and supplemental purchases costing approximately \$110.00 per student. Prerequisite: 320 or 320C and consent of instructor.

423-3 Environmental Interpretation. (See Agriculture 423.)

430-3 Wildland Watershed Management. Fundamentals of hydrology and water management for wildland watersheds. Emphasis is placed upon the effects of forest management alternatives on the quality, quantity, and timing of water yield. Prerequisite: 331.

431-3 Regional Silviculture. Designed to evaluate the various silviculture practices as they are commonly employed in various regions of the United States. Offered alternate years. Prerequisite: 310C.

451-2 Natural Resources Inventory. Theory and practical problems in biometrics to obtain estimates of natural resource populations. Use of computers and other advanced techniques. Case studies of inventory procedures. Field trip cost—maximum \$20. Prerequisite: 300 or consent of instructor.

452-2 Forest Soils. Land forms, their geology, and the soils developed on them; the chemical, physical, and biological properties of forest soils; soil classification, and field interpretation as related to forest resources management. Prerequisite: 240 or Plant and Soil Science 240.

453-2 Environmental Impact Assessment in Forestry. Methods of assessing the environmental impact of land-use systems on forest resources and assessing the impact of forest management systems of environmental quality are presented. Case studies culminating in the preparation of environmental impact statements are emphasized. Field trip cost, \$20. Prerequisite: 300, 310, 313, 312, 430, or consent of instructor.

460-2 Forest Industries. Analysis of raw material requirements, the processes and the products of forest industries. The environmental impact of each forest industry discussed.

492-1 to 4 Special Studies for Honor Students. Research and individual problems in forestry. Prerequisite: consent of chairman and 3.0 minimum grade point average.

494-1 to 6 Practicum. Supervised practicum experience in professional setting. Emphasis on administration, supervision, teaching, and program leadership in community, school, park and forest, institution, and other recreation settings. Prerequisite: consent of instructor.

500-2 Principles of Research. Research philosophy, approaches to research; theory, hypotheses inference, and predicting; problem identification, project development and organization; methods of data collection, analysis, and presentation; drawing conclusions and organizing results. Prerequisite: four hours in statistical methods or consent of instructor.

501-1 Graduate Seminar. Presentation and critiques of current research project of faculty, graduate student, and selected resource persons.

511-2 Advanced Forest Resources Economics. Application of microeconomic, macroeconomic and capital theory to forest resource problems; introductory econometric methods; long range supply and demand projections; international forest economics and policy problems decision theory in forest resource management. Offered alternate years. Prerequisite: 411 or equivalent or consent of instructor.

512-2 Tree Selection and Breeding. Quantitative methods of describing variation patterns of trees, testing genetic and environmental effects and interactions, and evaluations of tree improvement program. Prerequisite: 412 or consent of instructor.

516-2 Advanced Forest Management. Case studies in forest land management, management planning, utilizing computer programming, CFI and TSI role in long range management planning. Offered alternate years—odd. Prerequisite: 416, 331, and summer camp or consent of instructor.

520-2 Advanced Park Planning. Study of nature and functions of the recreation environmental planning process in theoretical and policy terms. Types of plans at local, regional, and state levels. Evaluation of different types of planning approaches and their utility in particular situations. Offered alternate years. Prerequisite: 421 or consent of instructor.

521-2 Recreation Behavior in Wildlands Environments. Review of sociological and psychological theories relevant to outdoor recreation planning; management alternatives. Review of current behavior research in outdoor recreation. Application of behavioral concepts to recreation planning and administration. Offered alternate years.

530-2 Forest Site Evaluation. A discussion of the factors affecting site quality and their use in present site evaluation methods. Lectures will draw upon recently published scientific literature as well as forest research data collected and analyzed for southern Illinois forests.

Laboratories will include sampling of forest sites and stands with subsequent analysis of data using graphic and statistical techniques and a computer to develop site evaluation models. Cost \$20.00. Prerequisite: 300, Biology 307 or consent of instructor.

531-2 Biological Productivity of Forests. The production and accumulation of organic matter in forest ecosystems is analyzed in relation to vegetational composition and structure, biogeochemical cycles, and environmental factors. Methods of quantifying productivity are emphasized during laboratory period. Cost: approximately \$15.00. Offered alternate years. Prerequisite: 331 or equivalent.

588-1 to 6 International Graduate Studies. University residential graduate program abroad. Prior approval by the department is required both for the nature of program and the number of hours of credit.

590-1 to 4 Readings in Forest Resources. Intensive consideration is given to current practices and problems in forestry. Prerequisite: consent of instructor.

593-1 to 4 Individual Research. Directed research in selected fields of forestry.

599-1 to 6 Thesis. Minimum of five hours to be counted toward a master's degree.

Geography

404-3 Spatial Analysis. The purpose of this course is to equip the student with a series of perspectives and tools with which to view spatial phenomena. Emphasis is placed on methodological approaches to the analysis of areal distributions and phenomena. Longitudinal analysis of data is included. Prerequisite: 300. Geography 410 is advisable or consent of instructor. Elective Pass/Fail.

406-2 Advanced Social Geography. Deals with one or more of the following: population, settlement, ethnic characteristics, political factors; depending on, and varying with interests of the instructors. Thus, a student may register more than one time. Emphasis will be directed at familiarizing the student with techniques of analysis and at developing concepts and principles that underlie understanding of the phenomena and their geographic significance. Prerequisite: 306 or consent. Elective Pass/Fail.

410-4 Techniques in Geography. Geographic applications of basic and advanced statistical and mathematical techniques, including basic descriptive statistics, hypothesis testing, regression and correlation, analysis of variance, and nonparametric statistics. Special emphasis on areal measures: nearest neighbor analysis, cluster analysis, etc. Prerequisite: 300 or consent. Elective Pass/Fail.

416-4 Specialized and Computer Mapping. Introduction to computer mapping, mapping from air photos, specialized cartographic problems based on individual student interests. Laboratory. Charges not to exceed \$2 for supplies. Prerequisite: 310 or consent. Elective Pass/Fail.

418-3 Management of Spatial Data Bases. This course will teach students to use specialized computer programs for the collection, storage, analysis, and mapping of spatial data. A simplified methodology makes the techniques available to students with no previous computer experience. Elective Pass/Fail.

421-2 Urban Geography. Examination of extracity relationships—theory and structure; intra-city relationships—theory and structure, and selected urban problems. Offered once annually. Prerequisite: 300 or consent. Elective Pass/Fail.

422-4 Economics in Geography and Planning. (Same as Economics 425.) Concepts, symbols, language, theory, elementary mathematics of economics and geography. Individual's preferences, production functions, the firm, markets, optimality, externalities, and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: 300 or consent of instructor. Elective Pass/Fail.

424-4 Natural Resources Planning. Literature in resource management problems. Emphasis on theory, methods of measurement and evaluation concerning implications of public policy. The role of resources in economic development and regional planning, water and related land resource problems, and environmental quality from a multidisciplinary perspective. Prerequisite: 304 or consent. Elective Pass/Fail.

425-4 Water Resource Planning Simulation. A review of water resource planning theory and practice from a physical, technological, economic, social, and geographical viewpoint. Students design a comprehensive water resource plan including flood control, water supply, water quality, and recreation for a city of 170,000 population. This plan is "Played" against a 50-year trace of hydrologic parameters in a computer simulation. Prerequisite: 424 or consent. Elective Pass/Fail.

427-3 Environmental Perception and Planning. Deals with a description and assessment of the relevance of normative and descriptive theories of decision-making and theories of choice for public policy and environmental management. Studies of the perception of urban

environments and other landscapes such as wilderness areas, and perception of and human response toward natural hazards will be considered. Prerequisite: 224 or consent. Elective Pass/Fail.

430-3 Theory of Environment. Exploration of the hypothesis that the physical environment works on local hydrology, soils, and natural vegetation, agriculture, and landforms, through energy and moisture exchanges. Emphasis on model building for comparison of subsystems, to rate effectiveness of contrasting environments, and to project these consequences to environmental management questions. Prerequisite: 302 or consent. Elective Pass/Fail.

431-2 Medical Geography. Deals with the distribution of disease and attempts to use the operational concepts of human ecology as a point of departure. A brief historical outline and an introduction to public health, epidemiology, and related fields is provided. Problems of communicable and chronic diseases, nutritional deficiency, geochemical relations, biometerology and medical climatology, environmental pollution, and seasonal disease calendars are emphasized. Taught by Department of Geography staff. Prerequisite: 300 or consent. Elective Pass/Fail.

432-4 Urban Climatology. Energy and moisture budget concepts are developed from basic principles. Microclimatic data, instrumentation and applications stress urban examples. Models of climatic effects and modeling of Man's effects concern city climates mainly. Charges not to exceed \$5 for field trips. Prerequisite: 302 or 430 or consent. Elective Pass/Fail.

432B-4 Hydrologic Climatology. Microclimatic factors which affect the hydrologic events of various climatic regions are treated extensively. Methods of estimating geographic variations in hydrologic relations to climatic and microclimate especially evapotranspiration, are compared and evaluated. Consequences of alternative land uses on climate and hydrology are considered regionally. Charges not to exceed \$10 for field trips. Prerequisite: 302 or 430 or consent. Elective Pass/Fail.

433-3 Advanced Physical Geography. Topics may include landforms, climate, soil, or water. Varies with the interest of the instructor. Prerequisite: 302 or consent. Elective Pass/Fail.

438-3 Applied Meteorology. Analysis of meteorological patterns approached through study of several case histories. Evaluation of meteorological data air mass and frontal analysis, development of weather forecasts, study of meteorological instruments, clouds, and precipitation patterns. Charges not to exceed \$5 for field trips, \$5 for supplies. Prerequisite: GSA 330 or consent of instructor. Elective Pass/Fail.

439-3 Climatic Change—Inevitable and Inadvertent. The geologic time-scale perspective of major natural events that have affected the theoretical steady-state climate, and factors in contemporary societal practices that have brought about inadvertent climatic modification. An assessment of the means and extremes of parameter values in the geologic time-scale perspective studied will be compared with the documented and present-day climatic parameter means and extremes. Approaches to prognoses for the Earth's future climatic state will be made. Charges not to exceed \$10 for field trips. Elective Pass/Fail.

440-2 Tutorial in Geography. Prerequisite: geography major, senior standing.

443-3 Teaching of Geography. Presentation and evaluation of methods of teaching geography. Emphasis upon geographic literature, illustrative materials, and teaching devices suitable to particular age levels. Charges not to exceed \$3 for field trips. Prerequisite: 300. Elective Pass/Fail.

470-6 to 9 (3, 1 or 2, 2 to 4) Urban Planning. (Same as Political Science 447). (a) Planning concepts and methods. Charges not to exceed \$8 for field trips. (b) Field problems. (c) Planning and public administration internship (for undergraduate credit only). Prerequisite: consent of department. Elective Pass/Fail.

471-3 Regional Planning. A study of the viewpoints, methodology, and experiences of various types of regional planning in the United States; some attention given to state and national scale planning. Prerequisite: 300 or consent. Elective Pass/Fail.

487-6 (1, 2, 3) Honors in Geography. (a) Honors tutorial; (b) Honors reading; (c) Honors supervised research. Must be spread over the last two years of the undergraduate's career. May be taken in either a,b,c or b,a,c sequence. Prerequisite: consent of department. Elective Pass/Fail.

490-2 to 4 Readings in Geography. Supervised readings in selected subjects. Prerequisite: geography major, advanced standing. Elective Pass/Fail.

500-4 Principles of Research. Meaning, philosophy, science, reasoning, creative endeavor, problem identification in research, research methodology, preparation of project statements, analysis, and results in multi-disciplinary approach with appropriate faculty participation. Prerequisite: graduate admission.

510-4 Multivariate Techniques in Geography. Introduction to matrices, vectors and linear equations; multiple regression and correlation, cononical correlation, multivariate analysis of variance and covariance, analysis of variance in two- and three-way designs, multiple discriminant analysis, classification procedures, introduction to elementary factor analysis. Examples and demonstrations of each method; basic introduction to computer applications of multivariate analyses. Prerequisite: 410.

- 511-2 Philosophy of Geography.** The nature of geography. Current trends in the field, present day geographers, and schools of thought. Geography's place among the disciplines. Prerequisite: graduate standing.
- 514-2 College Teaching of Geography.** Prerequisite: graduate standing.
- 520-2 to 4 Seminar in Physical Geography.** Prerequisite: graduate standing.
- 521-2 to 4 Seminar in Economic Geography.** Prerequisite: graduate standing.
- 522-4 Economics in Geography and Planning II.** (Same as Economics 525.) Public expenditure criteria based on free-market allocation, public, private, and merit goods and services, and related planning; expenditure criteria based on comprehensive plans; expenditure criteria and planning in the absence of general optimality; multiple objectives, measurement of benefits and costs, shadow prices, choice of techniques in planning; consideration of uncertainty. Critical evaluations of applied work and models of development projects, and programs, by students. Prerequisite: 422 or consent of the instructor.
- 524-2 to 4 Seminar in Cultural Geography.** Prerequisite: graduate standing.
- 527-2 to 4 Seminar in Urban and Regional Planning.** Prerequisite: graduate standing.
- 570-2 to 4 Planning Internship.** Planning internship with city or regional planning agency or private planning firm. Prerequisite: 470a or consent of department.
- 591-2 to 4 Independent Studies in Geography.** Prerequisite: graduate standing.
- 593A-2 to 24 (2 to 6 per semester) Research in Physical Geography.** Prerequisite: 520.
- 593B-2 to 24 (2 to 6 per semester) Research in Economic Geography.** Prerequisite: 521.
- 593C-2 to 24 (2 to 6 per semester) Research in Regional Geography.** Prerequisite: graduate standing.
- 593D-2 to 24 (2 to 6 per semester) Research in Cultural Geography.** Prerequisite: 524.
- 596-2 to 4 Field Course.** Prerequisite: graduate standing.
- 599-2 to 6 Thesis.** Prerequisite: graduate standing.
- 600-1 to 32 (1 to 16 per semester) Dissertation.** Prerequisite: graduate standing.

Geology

Courses with a laboratory may require purchase of a laboratory manual and a supply fee. All courses requiring field trips may have a field trip fee of \$2 to \$7.

400-2 Earth Science Seminar. Designed to integrate the basic concepts of earth science gained through courses taken in several departments. Focus on one or more local problems such as development and management of Cedar Creek Reservoir. Prerequisite: GSA 110, upper class standing or consent of department. Elective Pass/Fail.

414-1 to 2 Paleobotany. (See Botany 414.) Elective Pass/Fail.

415-3 Optical Mineralogy. The optical properties of minerals and the use of the petrographic microscope for identification of crystals by the immersion method and by thin section. Lecture, laboratory. Prerequisite: 310, Physics 203b, 204b, or 205b. Elective Pass/Fail.

416-3 X-ray Crystallography. (Same as Chemistry 416.) Introduction to the study, measurement, and identification of unknown crystalline materials by X-ray diffraction techniques (especially the Debye-Scherrer methods). Upon request, non-geology majors may work with unknowns from their own fields of study. Prerequisite: 310, Mathematics 150 or consent. Elective Pass/Fail.

417-3 Isotope Geochemistry. Stable and radioactive isotopes and the applications of isotopic studies to igneous and metamorphic petrology, ore deposits, sedimentology, surface processes, geothermometry and geochronology. Introduction to isotopic techniques and mass spectroscopy. Laboratory or research project required. Prerequisite: 310, 315 and 325 or consent. Recommended: Physics 203, Mathematics 150 and Geology 419.

418-3 Low Temperature Geochemistry. The application of chemical principles to geologic processes that occur on and near the earth's surface. Lecture, laboratory. Prerequisite: 310, Chemistry 222 or equivalent. Elective Pass/Fail.

419-4 Ore Deposits. The geological and other factors that govern the exploration for and occurrence of metalliferous mineral deposits. Study of the geological settings of the major types of ore deposits. Lecture, laboratories, and field trips. Prerequisite: 302, 315. Elective Pass/Fail.

420-3 Petroleum Geology. The geological occurrence of petroleum including origin, migration, and accumulation; a survey of exploration methods, and production problems and techniques. Laboratory study applies geological knowledge to the search for and production of petroleum and natural gas. Prerequisite: 221, 302. Elective Pass/Fail.

425-4 Invertebrate Paleontology. Principles of paleontology and a survey of the important invertebrate phyla and their fossil representatives. Laboratory. Field trips required. Prerequisite: 221, a biology course. Elective Pass/Fail.

428-3 Paleocology and Environments of Deposition. Characteristics, distribution, and classification of recent and ancient environments. Criteria for recognizing ancient environments. Sedimentological and paleoecological approaches. Recognition of ancient en-

vironments and environmental associations. Laboratory. Field trips required. Prerequisite: 425, 325 or concurrent enrollment. Elective Pass/Fail.

430-3 Physiography of North America. A regional study of North America landforms and their origins. The approach designed to give interaction among students, stimulus in organization and presentation of material and library competence. Plan a trip for optimum view of North American physiography. Prerequisite: 220. Elective Pass/Fail.

435-3 Hydrogeology. A problem-solving oriented course which covers the analysis and interpretation of the distribution, origin, movement, and chemistry of ground water. Laboratory. Prerequisite: 220, Mathematics 250. Elective Pass/Fail.

436-4 Elementary Exploration Geophysics. Theory and practice of geophysics as applied to the exploration and development of natural resources. Laboratory involves use of geophysical instruments and interpretation of data. Field trips required. Prerequisite: 220, Mathematics 150. Elective Pass/Fail.

437-3 Field Course in Geophysics. Use of geophysical equipment for collection, analysis and interpretation of seismic, gravity, magnetic, electrical, and other types of geophysical data. Prerequisite: 436 or consent.

440-1 to 4 Advanced Topics in the Geological Sciences. Individual study or research or advanced studies in various topics. Prerequisite: advanced standing and consent of instructor. Elective Pass/Fail.

445-3 Museum Studies in Geology. History, nature, and purpose of geology in museums, relationships of geology to other museum disciplines, application of geological methods to museum functions, preparation and preservation of specimens; nature, acquisition and utilization of geologic collections in museums, role of research in museums.

449-1 to 2 Internship. Credit for professional experience in the geological sciences. Arrangements made with chairman. Prerequisite: advanced standing. Elective Pass/Fail.

450-2 Introduction to Field Geology. Introduction to field techniques, principles of geologic mapping and map interpretation. Field trip fee \$5.00. Prerequisite: 302, 315 or concurrent enrollment. Elective Pass/Fail.

454-6 Field Geology. Advanced field mapping in the Rocky Mountains, including problems in stratigraphy, structure, petrology, paleontology, geomorphology, and economic geology. Transportation fee \$100.00, supplies \$6.00. Prerequisite: 302, 315; 450 recommended. Elective Pass/Fail.

455-3 Engineering Geology. (Same as Engineering 455.) An examination of problems posed by geology in the design, construction, and maintenance of engineering works. Topics studied include ground water, land subsidence, earthquakes, and rock and soil mechanics. One term paper and a field trip required. Prerequisite: 220 or consent. Elective Pass/Fail.

460-3 Geological Data Processing. Computer applications to geological problems including the processing and programming of data and the interpretation and evaluation of results. Lecture, laboratory. Prerequisite: Engineering 222 or Computer Science 202. Elective Pass/Fail.

462-3 Fundamentals of Structural Geology II. Intermediate topics in structural geology including strain theory, field strain analysis, geometry of complex mesoscopic structures and introductions to dislocations, deformation history and microfabric analysis. Hypotheses of orogenesis are discussed and evaluated. Lecture and assigned problems only. Prerequisite: 302 or equivalent.

465-3 Evolution of Orogenic Belts. A combination of lectures and seminars in which the structural and petrological development of specific orogenic belts is investigated in detail. Prerequisite: 302, 315 or equivalent. Elective Pass/Fail.

470-3 Earth Science for Teachers. Designed to help each teacher improve knowledge and skills of the earth sciences, develop units, laboratories, and resources for the classroom. Subjects range from rocks and landforms to weather; from local geology to specific resource people. Prerequisite: teaching experience. Elective Pass/Fail.

476-3 Pleistocene Geology. Deposits, stratigraphy, and history of the Pleistocene epoch. Evidence for differentiating and dating the glacial and interglacial sequence examined including deep sea cores, soils, magnetic studies. Required field trips. Prerequisite: 220, 221. Elective Pass/Fail.

478-3 Environmental Geology. Identification of geologic conditions and processes which affect man's use of the environment: earth materials and structure, climate, water, topography, active geological processes, hazards; impact of extraction, construction, water collection and control, and waste disposal. Introduction to aims and responsibilities of government regulatory agencies, environmental groups and industry. Lecture, laboratory, field trips, individual projects and reports. Prerequisite: 220 or equivalent and advanced standing.

480-3 Geology of Coal. Geology as related to exploration, development and mining of coal; stratigraphy sedimentation and structure of coal deposits; types of coal basins and their tectonic setting; concepts of cyclical deposition in coal basins; origin of splits and partings in coal seams; relationship of modern environments and ancient coal-forming environments; structural problems relevant to exploration and mining of coal; methods of resource evaluation. Three 1-hour lectures/week; five ½-day field trips.

482-3 Coal Petrology. Structural features and microscopy of coal seams. Origin and

alteration of coal constituents. Includes field trips, study of coal specimens, and techniques. Prerequisite: 220 and 221 or consent of instructor. Elective Pass/Fail.

484-3 Palynology. (Same as Botany 484.) Taxonomy, morphology, stratigraphic distribution, and ecology of fossil pollen, spores, and associated microfossils. Prerequisite: 220, 221, or consent of instructor. Elective Pass/Fail.

500-1 to 2 Teaching for Geology Graduate Students. To help teaching assistants develop skills in conducting laboratory work and leading discussions. One hour required for all teaching assistants in geology. Graded *S/U* only.

510-3 Advanced Sedimentation. Physical processes that govern the erosion, transportation, and deposition of detrital sedimentary particles. Formation and preservation of sedimentary structures. Physical sedimentary processes operative in different non-marine, coastal, and marine environments. Laboratory. Field trips required. Prerequisite: 325.

513-2 Advanced Geologic Data Analysis. Probabilistic and statistical methods utilized in the analysis of geologic data. Examples taken from all areas of geology. Emphasis, however, on sedimentary and stratigraphic data analysis. Prerequisite: 460 or consent of instructor.

516-3 Industrial Rocks and Minerals. Geologic settings, origin and uses of rocks and minerals used by industry for purposes other than sources of metals. Lecture, laboratory, and field trips. Prerequisite: 315.

518-3 Clay Mineralogy. Study of the structure, chemistry, origin, and geologic importance of clay minerals. Industrial and other applications of clays. Lecture, laboratory. Prerequisite: 310 or consent.

520-3 Igneous Petrology. Theoretical, experimental, and observational considerations applied to genetic relationships of igneous rocks. Laboratory to utilize the petrographic microscope in studying rocks from igneous terranes. Prerequisite: 315, 415.

521-3 Metamorphic Petrology. Theoretical and experimental approaches to solving problems in metamorphic petrology. Comparative studies between well-known metamorphic provinces. Laboratory to utilize the petrographic microscope in studying rocks from metamorphic terranes. Prerequisite: 315, 415.

522-3 Sedimentary Petrology — Siliciclastics. The petrography and petrology of siliciclastic rocks, emphasizing sandstones. Microscopic studies of composition and components of detrital clastic rocks, their origin, provenance, characteristics, diagenesis, cementation and lithification. Prerequisite: 325 and 415 or consent; 520 or 521 recommended.

523-3 Sedimentary Petrology—Carbonates. The origin, classification, diagenesis, and geochemistry of carbonate rocks, with emphasis on petrographic analysis. Study of recent carbonate depositional environments. Laboratory required. Prerequisite: 325, 418 recommended.

526-3 Advanced Topics in Applied Paleoecology. Lectures, field, and laboratory studies, including techniques and quantitative methods. Preparation for research in paleoecology. Emphasis on using fossil marine invertebrates and trace fossils to interpret ancient sedimentary environments. Prerequisite: 428 or consent.

527-3 Micropaleontology. Structure, classification, paleoecology, stratigraphic distribution, and evolution of microfossils. Laboratory work in techniques of collection, preparation, and study of microfossils. Identification and use of microfossils in solving stratigraphic problems. Preparation for research in micropaleontology. Prerequisite: 425 or consent.

529-1 to 3 (1 per topic) Advanced Topics in Applied Invertebrate Paleontology. Lectures, readings, field and laboratory studies, including techniques and quantitative methods of study. Preparation for research in paleontology. Maximum of three hours credit. Topics may include: brachiopods; bryozoans; coelenterates; echinoderms; fossil species and numerical taxonomy; mollusks. Prerequisite: 425 or consent.

535-3 Advanced Hydrogeology. A combination of lectures, seminars, and independent studies of advanced topics in hydrogeology, particularly geochemistry and the response of aquifers to stresses such as tides, recharge, and saline intrusion. Prerequisite: 435.

537-3 Applied Seismology. Study of the seismic reflection techniques, including theory and methods of collection and analysis of seismic reflection data, the seismic method, waveform analysis, and digital filtering with computer applications and seismic instrument characteristics. Prerequisite: Mathematics 150 or consent.

538-3 Gravity and Magnetism. Study of gravitational and magnetic methods used for solution of geological problems; topics include fundamental theory of gravitational and magnetic fields of the earth, field operations, data analysis, anomaly separation, and interpretation of data. Prerequisite: Mathematics 150 or consent.

542-2 (1, 1) Seminar in Geology. Seminars in advanced topics in geology. Prerequisite: graduate standing.

565-3 Rock Deformation and Structural Systems. Advanced topics in structural geology with emphasis on theoretical and experimental study of rock deformation and analysis of complex structural systems. Lecture and assigned problems only. Prerequisite: 462.

578-3 Fluvial Geomorphology. Detailed study of river processes, landforms, and major concepts related to geology. Flood, drainage basin analysis, and hydraulic geometry. Prerequisite: 374.

579-3 Geomorphology. A study of surficial processes and landforms with emphasis on concepts developed since 1950. Comparison of cyclic and non-cyclic models of landform evolution and detailed analyses of process mechanics. Prerequisite: 374 or consent of instructor.

582-3 Advanced Coal Petrology. Microscopy, source materials, coalification, constitution, and classification of peats, lignites, bituminous coal, anthracite; applications to industrial problems. Prerequisite: 482.

599-1 to 6 Thesis. Minimum of three hours to be counted toward a master's degree.

Guidance and Educational Psychology

Courses in this department may require the purchase of supplemental materials. Field trips are required for certain courses.

412-3 Human Behavior and Mental Health. A study of the principles of human needs, mechanisms of adjustment, and factors and conditions in life that tend to affect mental health. Prerequisite: junior or senior standing.

422-3 Assessment and Classroom Models. Classroom tests, measurement, standardized tests, grading, and the research knowledge in the application of ability grouping, team teaching, open education, and individualization.

442-3 Introduction to Counseling and Guidance Systems. The following topics will be covered: purposes of counseling and guidance; counselor roles in various settings; approaches to counseling; guidance activities; and application of the above.

481-2 to 4 (2, 2) Seminar. Conducted by staff members and distinguished guest lecturers on pertinent topics. Prerequisite: consent of instructor and department.

491-1 to 6 Special Research Problems—Individual Study. For majors. Formulating, investigating, and reporting on a problem in the area of guidance. Prerequisite: advanced standing and consent of department.

494A-3 Child Counseling Practicum. A combined seminar, laboratory, and field experience representing the central focus of the program in elementary counseling. Enables the student to practice the role of the counselor under close supervision. During the semester, the student is required to spend 30-50 hours in actual counseling and consulting. Prerequisite: 537 and 3 additional hours from substantive course work in the guidance and counseling program.

494B-3 Adolescent and Adult Counseling Practicum. Practice of counseling skills with an adolescent or an adult population in varied settings. The professional setting depends on the student's interest area. Individual and group supervision are provided. Use of tape recorder is required. Prerequisite: 538 and 3 additional hours from substantive course work in the guidance and counseling program.

494C-3 Career Planning Practicum. Supervised experience in handling career development experiences at elementary, secondary, or college levels. Application of theoretical models to program development is stressed, including presentation of relevant lessons, handling of group guidance activities, and conducting individual career development counseling sessions. Intern experience in public school or college settings equal to one day per week is required. Prerequisite: 542 and 3 additional hours from substantive course work in the guidance and counseling program.

494D-3 to 6 (3, 3) Practicum in School Psychology. Observation and participation in case conferences related to the development of psycho-educational assessment and planning, including teacher and parent consultation, field observations, and psychometric applications. Prerequisite: consent of instructor.

502-3 Basic Statistics. A master's level terminal statistics course. Emphasis on descriptive statistics and graphical representation of data. Includes a brief introduction to hypothesis testing procedures. Credit will not be given for both 506 and 502.

506-4 Inferential Statistics. Covers basic descriptive techniques such as central tendency, measures of variability and graphical presentation of data. In addition, hypothesis testing, analysis of variance, nonparametrics and simple linear prediction will be covered.

507-4 Multiple Regression. The general linear model is presented which allows for hypothesis testing including correlational analysis, analysis of variance, and analysis of covariance. Non-linear relationships are presented. Emphasis is placed on testing the stated research hypotheses. Prerequisite: 506.

511-3 Instructional Psychology. Critical review of empirical, methodological, and theoretical developments in the experimental study of instructional variables as related to student behavior. Prerequisite: None. Psychology 407 or equivalent is recommended.

512-3 Affective and Cognitive Behaviors at the School Level. Physical, mental, and social growth, affective and cognitive theories, moral and political development, acquisition and utility of language, motivation and memory. The course is to enable a teacher to deal effectively with the affective and cognitive behaviors of school adults and children.

513-3 Psychological Trends in Education. Study of literature from B. F. Skinner, Carl

Rogers, Erik Erickson, Abraham Maslow, John Dewey, Laurence Cremin, Jerome Bruner, Haim Ginott, Clark Moustakas, A. S. Neill, John Holt, Charles Silberman, Thomas Gordon, Jean Piaget, Jerome Kagan, Sigmund Freud, etc., to provide the student with knowledge of contemporary psychological trends in education.

515-3 The Psychological Aspects of Instructional Design. Survey of applications of psychology to the design, delivery, and evaluation of instruction for cognitive and affective learning. Prerequisite: 511.

518-3 Psychology of the Classroom. The course is to develop classroom interpersonal skills such as values clarification, good listening skills, and empathy. Strategies for the resolution of conflicts will be presented and reasons for disruptive behavior will be discussed. Role playing, group processes in the classroom, behavioral modification, and classroom discipline will also be examined.

521-3 Analysis of Classroom Behavior—Consultative Practices for School Personnel. Trains school pupil personnel to serve as a consultant to classroom teachers regarding prevention and modification of undesirable classroom behaviors.

530-4 Standardized Testing: Use and Interpretation. Principles and procedures for determining appropriate instructional uses of tests and how to apply tests in the process of helping individual students. Emphasis will be on necessary principles of understanding standardized tests, interpretation of test results to students, teachers, and parents, and developing school testing programs. In addition, methods for appraising guidance programs will be covered.

531-3 Principles of Measurement. Intended to provide theoretical principles of measurement which are applicable to both teaching and research. Part of the course will be devoted to current issues in measurement and to practical applications to these theoretical principles.

532-3 Individual Intelligence Theory. Nature and assessment of intellectual behavior with emphasis on the historical, theoretical, and developmental aspects of intelligence. Special attention is given to test standardization and interpretation of the Stanford-Binet and Wechsler Scales.

533-4 Individual Measurement and Practice. Psycho-educational assessment of individual mental factors with attentions to all aspects of administration, scoring, interpreting, and utilizing the results of the Stanford-Binet Intelligence Scale, Wechsler Intelligence Scales for children and the Wechsler Adult Intelligence Scales. Additional charges not to exceed \$12 may be assessed for test kit rentals. Prerequisite: 494d, 532.

537-4 Counseling with Children: Theory, Techniques, and Practice. The foundations and techniques of individual and group counseling in the elementary school, with particular emphasis on theories, operational approaches, tools, and related procedures. Students will be required to practice the techniques and approaches learned.

538-4 Interpersonal Relations: Theory and Practice. In this course, students will: understand the nature of counseling; be familiar with theoretical models of interpersonal relationships; develop effective communication skills; and be acquainted with strategies used to modify attitudes and behaviors. Course requires student participation in laboratory activities and use of tape recorder.

540-3 Problems, Issues, and Trends in School Guidance and Counseling. Students will examine current problems, issues, and trends with an emphasis on strategies for solving the problems; clarifying the issues and placing them in proper perspective; examining possible ramifications of the trends.

542-4 Career Development Procedures and Practices. For pupil personnel workers, teachers, and administrators to give an orientation to theoretical, economic, and informational aspects of vocational guidance and to provide experiences with using career information in counseling and decision making. Obtaining occupational and information materials for use in guidance and teaching. Taking vocational field trips and field work with children or adolescents will be required. Prerequisite: 412.

543-3 Group Theory and Practice. Focuses on the theory, functions, and techniques of group procedures appropriately applied to decision making, problem solving, and resolution of conflict. Major emphasis is given to the dynamics of group behavior, the social-psychological interaction of small groups, and their applications to group counseling. Dual emphasis is placed upon interpersonal self-understanding and the familiarity with group procedures.

546-4 Personality Assessment. Assessment of individual interest patterns, motivations, and perceptual systems with attention to theories and assumptions of selected projective and objective diagnostic tests. Focuses on student related problems in elementary and secondary education. Additional charges not to exceed \$12 may be assessed for test kit rentals. Prerequisite: 533.

547-3 Implementation of Guidance Services. Designed to furnish the prospective school counselor with knowledge and competency in planning and implementing a complete and integrated pupil personnel program for public schools. During the semester attention will be given to the parameters of such an integrated program, i.e., the function of a philosophical base; the principles which emerge from the philosophical position; the planning strategies

best suited to implementing such a program; the planning strategies best suited to implementing such a program; the actual recommendations for personnel, facilities, and materials; evaluation techniques and strategies; methods of reporting progress to students, school personnel, and the community, and an estimate of the per pupil cost. Prerequisite: experience in school guidance work, advanced standing in the counselor education program or equivalency to either of the above.

551-3 The Supervision of Practicum. Doctoral students will: become familiar with models of counseling supervision; practice supervision with master's students; and be acquainted with the research in the counselor training and supervision. Individual and group supervision are provided. Tape recording of supervision sessions is required.

555-3 to 6 (3, 3) Seminar in School Psychology. Major professional issues and responsibilities; the school as a social system; ethical considerations; school related agencies and facilities; and professional organizations. Assists the student to prepare the project proposal required for the specialists' degree. Prerequisite: consent of instructor.

562-6 (3, 3) Human Development in Education. Theories and research evidence regarding child development and behavior are investigated. These considerations focus upon implications for research and educational practices. (a) Childhood. (b) Adolescent.

567-2 to 9 (2 to 6 per semester) Topical Seminar in Educational Psychology. Contemporary topics and problems in the area of educational psychology. Conceptual and empirical activities. Prerequisite: consent of instructor.

568-1 to 12 (1 to 6 per semester) Topical Seminar in Counseling and Guidance. Contemporary topics and problems in the area of counseling and guidance are covered. Conceptual experiential and empirical activities are stressed. Each course can be offered for one hour or more depending on current validity at the time offered. A student may also retake a course as the issues change in that area.

570-3 Humanistic and Behavioral Theories in Education. Doctoral students will critically examine major humanistic and behavioral systems; evaluate the research dealing with the systems; and be able to apply the systems to educational problems.

580-2 to 12 (2 to 6 per semester) Doctoral Seminar in Educational Measurement and Statistics. Topics vary depending upon needs of students and competencies of staff. For example, seminars are held on such topics as factor analysis, program evaluation, scaling techniques, advanced regression analysis. Prerequisite: 507.

592-1 to 8 (1 to 6 per semester) Independent Study and Investigation. For advanced graduate students. Topics of interest to the individual student are studied under supervision of a department staff member. Prerequisite: consent of department.

593-1 to 4 Individual Research. For doctoral students in educational psychology. Formulating, investigating, and reporting of research problems in the area of guidance and educational psychology. Prerequisite: consent of department.

594-1 to 6 Advanced Practicum. Primarily for advanced master's or doctoral students who want to continue developing their counseling skills. Counseling settings are individually arranged, however, they typically follow the 494 practicum experience.

595-4 to 8 (4, 4) Internship in the Psychology of Teaching. Full or half-time teaching practice in the management of classroom behavior, and the design, delivery, and evaluation of instruction. Interns will be supervised by university staff. Prerequisite: 512, 513, 518, 540, and the consent of department.

599-1 to 6 Thesis. Prerequisite: consent of department.

600-1 to 32 (1 to 16 per semester) Dissertation.

Health Education

400-3 Health Appraisal of School Children. The teacher as a member of the health team in recognizing common health deviations. Emphasis on helping each child realize his full health potential.

401-3 Epidemiological Approaches to Disease Prevention and Control. Principles and practices in the cause, prevention, and control of diseases in various community settings.

402-3 Death Education. Designed to prepare educators to conduct learning experiences about death and dying in a variety of school, college, medical care, and community settings. Stress will be placed on developing brief, functional curricula and usable, imaginative teaching-learning materials, and on evaluating resource materials for use in educating at various levels of maturity.

405-3 Sex Education. Examines various programs of sex and family life education in schools, recognizing a range of community attitudes.

407-3 Drug Education. Meets requirements of Illinois state law for education concerning drugs including alcohol for grades K-12. Explores motivations behind use and abuse of drugs. Offers experiences in development of curriculum and teaching approaches and material.

434-3 Advanced First Aid and Emergency Care. Meets the needs of those in positions where a complexity of first aid and emergency care procedures are needed. American Na-

tional Red Cross and Illinois Heart Association cardiopulmonary resuscitation instructor authorizations provided. Consent of instructor required.

442S-5 Driver and Traffic Safety Education — Practicum. Provides prospective teachers with simulation, range, and on-road teaching experience with beginning drivers. Students may be required to purchase materials not to exceed \$15. Prerequisite: 302S.

443S-3 Driver and Traffic Safety Education — Program Administration. Emphasizes administration, reimbursement, scheduling, public relations, planning, and evaluation of driver education programs. Prerequisite: 442S or consent of instructor.

445-2 to 6 (2 to 3, 2 to 3) Contemporary Specialized Laboratory Techniques. Provides teachers and other highway safety personnel with instructional experience in (a) motorcycle safety, (b) emergency evasive and pursuit driving. Prerequisite: 302 or consent of instructor. Maximum of 6 semester hours may be obtained either graduate or undergraduate.

450-3 Health Programs in Elementary Schools. Orientation of teachers to health programs and learning strategies. Designed for elementary education majors.

460-3 Health Programs in Secondary Schools. Orientation of teachers to health programs and learning strategies. Designed for secondary education majors. Open to non-health education majors only.

461-3 Health Education Summer Conference. A different focal theme each year; e.g., mood modifying substances, ecology, human sexuality, emotional and social health dimensions. Information, ideas, and concepts are translated into teaching-learning materials and approaches; continuing opportunity for interaction between prospective and experienced teachers.

462-3 Health Education Summer Conference. Conference style and format are similar but themes change.

463-3 Health Education Summer Conference. Conference style and format are similar but themes change.

470S-3 Highway Safety as Related to Alcohol and Other Drugs. Relationship between alcohol and other drugs and traffic accident causes. A review of education programs designed to minimize drug related accidents. Prerequisite: advanced standing or consent of instructor.

471-2 Health Education Instructional Designs. Analysis of existing health education curricula with emphasis on student development of instructional designs and modules. Students will prepare, utilize, and critique materials. Prerequisite for student teaching in health education. Prerequisite: 305.

475S-3 Traffic Law Enforcement and Planning. Acquaints safety and driver education teachers and highway safety personnel with purposes of traffic law enforcement and engineering, and methods used to fulfill these purposes. Emphasis is placed upon ways of improving existing services and coordinating efforts of official and non-official agencies concerning traffic problems. Prerequisite: 302S or consent of instructor.

480S-3 Traffic and Driver Education Program Development. Acquaints students with curriculum innovation, current philosophy, learning and teaching theories, and instructional designs. Students will develop learning packages and modules. Prerequisite: 443S or consent of instructor.

481S-3 Traffic and Safety Education—Evaluation Techniques. Emphasizes methods of evaluation as applied to traffic and safety education programs. Prerequisite: 480S or consent of instructor.

483-3 Community Health Administration in the United States. Background and development of community health administration structures in the United States; the dynamics and trends evolving from current health and medical care programs and practices.

485-3 International Health. Health beliefs, values, and practices of peoples in various cultures as related to a total way of life of potential value to both prospective teachers and students in other fields.

488-1 to 3 Environmental Dimensions of Health Education. Application of the principles of learning to understanding Man interacting with his environment. Emphasis placed upon individual and community responsibilities for promoting environmental health. Rural and municipal sanitation programs and practices are included.

489-3 Introduction to Vital Statistics. An introduction to bio-statistics; examination of theories or population projections; collection, organization, interpretation, summarization, and evaluation of data relative to biological happenings with emphasis on graphic presentation.

490-2 to 6 Field Experiences in School, Community Health or Safety Education. Field observation, participation, and evaluation of current school or community health education or safety programs in agencies relevant to student interests. Prerequisite: consent of instructor.

491-3 Health Teaching/Learning: School and Community. Teaching and learning strategies at secondary school levels and in other community group settings. Opportunities to examine and observe a variety of educational strategies applicable to health education.

495S-3 Driver Education for the Handicapped. Methods and techniques in the use of assistive equipment and program materials for teaching handicapped persons how to drive. Prerequisite: advanced standing or consent of instructor.

500-4 Community Organization for Health Education. Theory and practices in community organization for health education; group work methods and leadership theories are explored. Field observations required.

510-3 Curriculum in Health Education. Analyzes the significance of current trends in curriculum theory and design; develops objectives, content, learning approaches, resource teaching-learning materials; and evaluation as components of a curriculum guide.

511-3 Health Education Conference Practicum. A summer practicum course taken in conjunction with 461, 462, or 463. Participants help plan the conference, analyze activities, suggest alternatives, assume leadership responsibilities, prepare conference proceedings, and design a comparable experience with another focal theme. Prerequisite: consent of instructor.

515-3 Review of Current Literature in Health Related Fields. Develops a broad philosophical framework for health education and safety education, examining a variety of professional materials for their relevance to such a framework. Reading, reporting, discussing, and interacting in relation to issues of contemporary and future concerns by conceptualizing health as a process in the realization of individual and societal goals.

520-3 Special Projects in Health Education. Study of problems in health education and safety education culminating in a research paper.

526-3 Evaluative Approaches to Health Education. Survey and analysis of health testing and evaluation procedures, uses and limitations of knowledge and attitude tests, behavioral inventories, check lists, questionnaires, interviews, and other techniques.

530S-3 Research in Traffic Safety. A study of unique problems related to traffic safety and a review and evaluation of contemporary studies. Prerequisite: graduate standing or consent of instructor.

533A-4 Human Ecology I. The development of a theoretical construct for individual needs and community concerns. Programming trends related to the life-cycle including aging. An epidemiological approach to understanding the cause, nature, extent, and trends in conservation of human resources.

533B-4 Human Ecology II. Approaches to protective and preventative health measures. A study and evaluation of pilot and experimental programs of research and development in community efforts to meet existing and evolving health problems. An analysis of needed experimentation, research, and possible sources for planning leadership, programming, and funding for enhancing the quality of life. Prerequisite: 533A or consent of instructor.

536-3 Professional Preparation in Health Education. Considers national, state, and local factors influencing professional preparation, accreditation, and certification processes. Emphasis upon influences of official and non-official agencies. Historical perspective, the present status, and future directions of the profession.

550S-3 Current Developments in Traffic and Safety Education. Current problems, trends, and research studies in traffic and safety education are reviewed, critiqued, and evaluated.

555S-3 Traffic Safety Management. Course deals with highway safety legislation and other acts related to traffic safety. Application of safety management techniques, procedures and structure of federal and state agencies are emphasized. Prerequisite: consent of instructor.

572-3 Coordination and Supervision of School Health and Safety Programs. For advanced students will have leadership responsibilities in planning, implementing, and coordinating comprehensive health and safety education programs at all levels from pre-school through junior colleges. Cooperative relationships among teaching, administrative, and supervisory personnel with community groups will be stressed.

590-8 Practicum in Community Health. Students are assigned full-time to a community health agency for experiences in health education. Restricted to those specializing in community health.

597-2 (1, 1) Seminar in Health Education. Advanced graduate students discuss individual health projects and present research problems. Each will present a dissertation prospectus.

598-3 Institute: Writing Research Proposals. Consideration is given to funding sources, proposal guidelines, procedures for support, budgetary requirements, and evaluation procedures. Students examine different types of funded projects, develop a research prospectus, and analyze the art of grantsmanship and political action.

599-1 to 6 Thesis.

600-1 to 32 (1 to 16 per semester) Dissertation.

Higher Education

402-1 to 2 Principles of Student Personnel Group Work. Acquaints the student with group work possibilities and functions in higher education. Elective Pass/Fail.

431-3 Workshop in Adult and Community Education. (See Educational Leadership 431.)

501-2 Introduction to Research in Higher Education. Provides an understanding of diverse research forms, of historical, ethical, and philosophical considerations in research, and of current issues in educational research with special reference to tertiary institutions.

510-3 Higher Education in the United States. An overview of American higher education in historical and sociological perspectives: its development, scope, characteristics, issues, problems, trends, and criticism.

512-3 Higher Education in Selected Nations. A study of higher education systems and trends outside the United States and of the role of the university in world affairs.

513-3 Organization and Administration in Higher Education. Theories and practices in governance of various types of higher education institutions with attention through case studies to problems of formal and informal structures, personnel policies, decision making, institutional self-study, and societal-governmental relations.

515-3 College Student Development: Operations and Policies. Study of organization, functions, and undergirding principles and policies of student development and the related student personnel services and programs in contemporary colleges and universities including community colleges.

516-3 College Students and College Cultures. Study of the nature of students, the impact of the college on student development and the nature of the college as a unique social institution. Study of student subcultures and the interaction between students, institutions, and communities.

518-3 College Teacher and College Teaching. A study of the professional roles of academic man: as teacher, scholar, researcher, member of the profession, and faculty member. Emphasis is placed on classroom strategies to extend educational opportunities, the characteristics and values of faculty members, the teaching-learning process, models of effective behavior, and academic freedom.

521-3 Curriculum Design and Policy. A study of assumptions, materials, methods, and evaluation in the designs of various curricula in colleges and universities, with attention to curriculum resources and policy.

525-3 Philosophy of Higher Education. Critical examination of assumptions, aims, operations, consequences, basic concepts and symbols of higher education from philosophic perspectives.

526-3 The Community-Junior College. A study of the characteristics and functions of the community or junior college in American higher education. Course content aids the student in developing a general understanding of the philosophy, objectives, organization, and operations of this significant institution.

528-3 Finance in Higher Education. A study of financing higher education in American society and related economic aspects. Emphasis is given to sources of funds and management of financing in colleges and universities including budgeting, control, accountability, and current trends.

535-1 to 14 (a-h-1 to 3 each; i-1 to 6) Higher Education Seminar I. A series of seminars for specialized study of areas of administrative practice and policy. (a) Student personnel group work, (b) Law and higher education, (c) Student financial assistance, (d) Admissions and records, (e) Academic advisement, (f) Academic and faculty administration, (g) Adult and continuing education, (h) Sociology of higher education, (i) Selected topic.

545-1 to 16 (a-g-1 to 3 each; h-1 to 8) Higher Education Seminar II. A series of seminars for scholarly inquiry into significant aspects of higher education. (a) Community and junior college administration, (b) Federal government and higher education, (c) Institutional research, (d) Current issues in higher education, (e) Problems in central administration, (f) Business and fiscal affairs, (g) History of higher education, (h) Selected topic.

550-1 to 4 Higher Education Seminar III. An advanced seminar for doctoral students in higher education. Two hours required for all doctoral students. Prerequisite: doctoral students only.

589-1 to 4 Higher Education Research Seminar. Limited to doctoral students formulating and preparing research designs for investigation and implementation. Prerequisite: consent of instructor.

590-1 to 6 Individual Readings. Supervised readings in the literature of higher education. Graded *S/U* only. Prerequisite: consent of instructor.

591-1 to 6 Individual Study. Individual inquiry into selected problems or special topics in higher education under supervision of a graduate faculty member. Graded *S/U* only. Prerequisite: consent of instructor.

592-1 to 6 Special Problems (Individual). Selection, investigation, and writing of a special research project under the personal supervision of a graduate faculty member. Graded *S/U* only. Not available to students in doctoral programs. Prerequisite: consent of instructor.

595-1 to 6 Internship in Higher Education. Supervised field experience in appropriate settings with evaluation seminars. Graded *S/U* only. Prerequisite: consent of instructor

599-1 to 6 Thesis.

600-1 to 32 (1 to 16 per semester) Dissertation. Minimum requirement for Ph.D. in education is 24 hours.

History

415-3 European Rural Society, 400-1100 A.D. Monks, priests, peasants, barons, and kings; an historical sociology of the ecclesiastical and feudal regimes which replaced classical civilization after the fall of the Roman Empire in the West. Elective Pass/Fail.

416-3 European Urban Society, 1000-1550 A.D. Merchants, bankers, craftsmen, lawyers, and bureaucrats: a sociological and economic analysis of the origins and development of early modern European urban institutions. Elective Pass/Fail.

417-4 Cultural History of the Middle Ages. Selected problems in the development of mediaeval culture, the mediaeval universities, and the transmission of ancient ideas to the modern world. Elective Pass/Fail.

418-3 Renaissance. The focus is on the Renaissance in Italy and in particular on its relation to the social and economic context in which it developed. The spread of humanism and humanistic values to other areas of Europe will also be considered. Elective Pass/Fail.

420-3 Reformation. Concentrates on the movement of religious reforms in the 16th Century. Emphasis on its roots in the past, particularly in earlier expressions of popular piety and to the wider social and political effects in the 16th and 17th centuries. Elective Pass/Fail.

421-6 (3, 3) Absolutism and Revolution: Europe 1600-1815. (a) 1600-1715; (b) 1715-1815. The development of enlightened despotism, the rise of the revolutionary movement, and the Napoleonic period. Elective Pass/Fail.

422-6 (3, 3) Intellectual History of Modern Europe. (a) 1600-1815; (b) Since 1815. The first semester will cover the Age of Reason, the Enlightenment, and Early 19th Century Romanticism. The second semester will cover the period of Marx and Darwin to the Contemporary World. Elective Pass/Fail.

423-4 Diplomatic History of Europe Since the Congress of Vienna. A study of the diplomatic relations between the nations of Europe in the 19th and 20th centuries.

424-6 (3, 3) Social and Revolutionary Movements in Nineteenth Century Europe. (a) 1815-1871; (b) 1871-1914. Changing social and political structure of Europe caused by the impact of industrialization and the French Revolution. The consequences of these developments in terms of the emergence of new social forces and the development of movements for social and political revolution. Elective Pass/Fail.

425-6 (3, 3) Twentieth Century Europe. (a) World War I to World War II; (b) World War II and after. Problems in the political, social, and military history of Europe in the 20th Century. Elective Pass/Fail.

430-3 The British Empire-Commonwealth. The rise of the British Empire and its subsequent development into a commonwealth of self-governing nations. Elective Pass/Fail.

431-3 British Constitutional History. The development of the English constitutional system from its origins to modern times. Elective Pass/Fail.

432-4 History of France. Social, economic, political, and intellectual evolution from mediaeval origins to the present day. French contributions to western culture. Elective Pass/Fail.

433-4 History of Germany. German state and society from the Middle Ages to the present day. Elective Pass/Fail.

434-3 History of Scandinavia. Denmark, Norway, Sweden, Finland, and Iceland. Related history of the Baltic and North Sea regions, from prehistoric times to the present. Elective Pass/Fail.

435-3 History of Modern Italy. Italy in the 19th and 20th centuries. Emphasis is on continuing problems: the tensions between agricultural south and industrial north, Italy's role as a Great Power, and the persistence of centrifugal forces in Italian politics. Elective Pass/Fail.

436-6 (3, 3) History of Spain. (a) To 1700; (b) Since 1700. Institutional, intellectual, socio-economic, and political history from the Middle Ages to the present. Elective Pass/Fail for (b) only.

437-6 (3, 3) History of Russia. (a) Imperial Russia from Peter the Great to the emancipation of the serfs; (b) Russia since emancipation: modernization and revolution. The study of Russian history from Peter the Great to the present. Elective Pass/Fail.

450-4 American Colonial History. The discovery, settlement, and development of the colonies before the American Revolution.

451-3 Jeffersonian and Jacksonian America, 1789-1850. Origin and development of democratic institutions and the emergence of sectional conflict in the pre-Civil War Era. Elective Pass/Fail.

452-6 (3, 3) United States History 1850-1896. (a) Civil War era; (b) the origins of modern America; reconstruction and nationalization: 1885-1896. The study of the background to the Civil War, the Civil War, Reconstruction, and the Gilded Age.

- 453-6 (3, 3) Twentieth Century America History.** (a) 1896-1921; (b) 1921-1945. The history of the United States since 1896 with emphasis upon political history and behavior.
- 460-6 (3, 3) Social and Intellectual History of the United States.** (a) To 1860; (b) since 1860. The development of American society and a study of the various types of economic, social, and political thought that have influenced it.
- 461-6 (3, 3) Constitutional History of the United States.** (a) To 1877; (b) from 1877. Origin and development of the American constitution from the English background to the present time. Stress is placed on the political, social, and economic forces which influenced the American constitutional system. Elective Pass/Fail.
- 462-4 Problems in Black American History.** Developments which formed the foundation for the "Black Revolution" of the present time.
- 463-6 (3, 3) History of American Diplomacy.** (a) To 1914; (b) Since 1914. General consideration of American foreign policy and the emergence of the United States as world power. Elective Pass/Fail.
- 464-6 (3, 3) American Economic History.** (a) To 1869; (b) Since 1869. The growth of the American economy from the colonial period to the present. Emphasis is placed on the historical forces which influenced the American economic system.
- 465-6 (3, 3) History of the South.** (a) The Old South; (b) The New South. Social, economic, political, and cultural developments of the South.
- 466-6 (3, 3) History of the American West.** (a) To 1850; (b) Since 1850. The American frontier and its impact on American society from the colonial period to the 20th Century.
- 470-3 Colonial Latin America: Policies and Practices.** Theory and operation of the Spanish and Portuguese colonial systems in the New World. Elective Pass/Fail.
- 471-6 (3, 3) History of Mexico.** (a) 19th Century; (b) 20th Century. Significant political, economic, diplomatic, social, and cultural aspects of Mexican life from independence to the present time with emphasis upon the Mexican Revolutions. Elective Pass/Fail.
- 472-3 The Caribbean Area.** A history of the Caribbean from Columbus to modern times. Elective Pass/Fail.
- 473-3 Argentina and Chile.** A narrative and comparative history of these two leading Latin American nations with emphasis on the period since independence. Elective Pass/Fail.
- 474-3 Andean South America.** The political, economic, social and cultural development of the Andean nations from Precolumbian times to the present. Elective Pass/Fail.
- 475-3 History of Brazil.** The political, social, cultural and economic development of Latin America's largest nation. Elective Pass/Fail.
- 476-3 Dictatorships in Latin America.** A political, economic, social and military study of the domestic and international aspects of dictatorship. Elective Pass/Fail.
- 480-6 (3, 3) History of Chinese Civilization.** (a) Traditional China; (b) Modern China. The first semester provides a full coverage of traditional China with emphasis on classical philosophies, religions, historical writings, literature, arts and science. The second semester deals with the transformation of China into the modern ages. Elective Pass/Fail.
- 484-3 History of Inner-Asian Relations.** Tribes, migrations, wars, and power politics in Central Asia and outlying areas of China from Han times through 19th century rivalries to latest developments along the Sino-Soviet frontier. Elective Pass/Fail.
- 485-3 History of the Middle East.** A study of Middle East from the 7th through the 16th centuries concentrating on the following major themes: the development of Islamic civilization, the mediaeval Muslim world, the disintegration of the Arab caliphate, the rise of the Ottoman Turks, and the development of the Ottoman Empire. Elective Pass/Fail.
- 487-4 Topics in African History.** Investigations into the most important historical questions of Sub-Saharan Africa. Prerequisite: 387a, b or consent of instructor, or graduate standing. Elective Pass/Fail.
- 490-1 to 4 Special Readings in History.** Supervised readings for students with sufficient background. Prerequisite: Registration by special permission only.
- 491-3 Great Historians.** Writings of historians from Herodotus to Toynbee. Elective Pass/Fail.
- 492-3 Methods of Historical Research.** Fundamentals of historical investigation, criticism and composition. Open not only to history majors but with permission of instructor to those in other disciplines interested in history as a research tool.
- 493-3 to 6 (3, 3) Problems in U.S. History.** Topics vary with instructor. May be repeated for a maximum of six semester hours provided registrations cover different topics. Topics announced in advance.
- 495-4 History Honors.** Principles of historical method, research, and writing for senior honor students only. Not for graduate credit. Prerequisite: consent of department.
- 497-3 Historical Museums, Sites, Restorations and Archives.** The historical development of the museum from the Academy, the Lyceum, and the Great Museum of Alexandria. Discussion of the museums that have developed in the last three centuries with emphasis on the United States will include historical sites such as battlefields, forts, historic buildings, restorations, historical monuments, and major archives. Field trips to some of these sites form part of the course.
- 498-3 Problems of the History Museum.** Examines the general background and function

of the museum in its contemporary setting with special emphasis on tasks of the individual who wishes to work in a historical museum or in an interpretative center. Given in cooperation with the University Museum. Prerequisite: consent of instructor.

515-3 to 6 (3, 3) Studies in Mediaeval and Renaissance History. A study of the major historical literature on the Middle Ages and Renaissance.

516-4 to 8 (4, 4) Seminar in Mediaeval and Renaissance History. A research course concerning selected topics in Middle Ages and the Renaissance.

520-3 to 6 (3, 3) Studies in Early Modern European History. A study of the major historical literature in early modern European history.

521-4 to 8 (4, 4) Seminar in Early Modern European History. A research course concerning selected topics in early modern European history.

522-3 to 6 (3, 3) Studies in Modern European History. A study of the major historical literature in modern European history.

523-4 to 8 (4, 4) Seminar in Modern European History. A research course concerning selected topics in modern European history.

530-4 Seminar in English History. A research course concerning selected topics in English history.

550-4 Seminar in American Colonial History. A content and research course concerning specific areas of American Colonial history.

551-4 The Age of Jefferson. A content and research course on the rise and development of Jeffersonian Democracy, 1790-1824, with emphasis upon social, economic, and political programs of Republicans and Federalists; the clash of mercantile and agrarian interests.

552-4 Reform Movements in the Pre-Civil War Period. A content and research course concerning major political, economic and social issues, 1825-1850, which divided the United States and prepared the way for civil war.

553-4 Seminar in Twentieth Century United States History. A content and research course on American political history and behavior since 1896.

554-5 New Viewpoints in American History. New interpretations and recent developments in American history.

555-4 to 8 (4, 4) Seminar in American History. A content and research course in American history. Topics will vary with the instructor.

561-4 Seminar in American Constitutional History. A content and research course concerning specific areas of American Constitutional history.

562-4 Seminar in Black American History. A content and research course concerning selected areas of Black American thought and life.

563-4 Seminar in American Diplomatic History. A content and research course concerning selected studies in American diplomacy.

564-4 Seminar in American Economic History. A content and research course concerning selected topics in American economic history.

567-4 Seminar in Illinois History. A content and research course concerning selected topics in Illinois history, 1818-1918.

570-4 to 8 (4, 4) Seminar in Latin American History. A content and research course concerning selected studies in Latin American history.

580-4 Seminar in Modern China. A content and research course concerning selected topics in modern Chinese history.

587-4 Seminar in African History. A content and research course on selected topics in African history. Prerequisite: 487 or consent of instructor.

590-1 to 8 (1 to 3 per semester) Readings in History. Individual readings. Registration by special permission only. Student must obtain the consent of the faculty member with whom he proposes to work. Graded *S/U* only. Prerequisite: registration by special permission only.

591-2 to 5 Independent Investigation. Graded *S/U* only. Prerequisite: doctoral standing and consent of graduate adviser.

599-1 to 6 Thesis. Minimum of three hours to be counted toward a master's degree.

600-1 to 30 (1 to 16 per semester) Dissertation.

Home Economics Education

(SEE VOCATIONAL EDUCATION STUDIES)

Human Development, Division of

Child and Family

There is no approved graduate program in child and family. Students currently

enrolled in a major in home economics may continue to receive graduate credit for the courses listed below:

408-3 to 9 (3, 3, 3) Workshop. Designed to aid workers in professions related to child and family. Emphasis for the workshop will be stated in the announcement of the course.

410-3 Human Sexuality. Provides detailed in-depth information on such topics as philosophical views of sexual behavior, sex techniques, sex therapy, sexual variations, sexual anatomy and physiology, including the sexual response and changes with age, and sexual development in childhood.

445-3 Administration of Pre-School Programs. Planning and organizing programs for preschool or residential facilities including budgeting, staffing, programming, and evaluation. Prerequisite: 345 and 346 or consent of instructor.

456-3 Infant Development. Current theories and knowledge concerning growth and development of infants with related laboratory field experiences. Prerequisite: 237 or Psychology 301 or equivalent.

457-3 Infant Stimulation and Care. Application of theories in infant development in care and stimulation practicum. Development of competencies and skills needed by infant specialists and professionals. Two hours seminar, 4 hours practicum. Prerequisite: 456 or concurrent enrollment.

466-3 Practicum in Parent-Child Study. Designed to increase student's ability to work with parents and parent groups through an awareness of factors in the parent-child relationship and knowledge of current research and methods in parent education. Integration with infant and child development laboratories and related field experience. Prerequisite: 227, 237, or equivalent.

471-2 to 6 Field Experience. Supervised learning experiences in community nursery schools and public agencies. Prerequisite: consent of instructor.

481-1 to 3 Readings. Child development and family living readings under staff supervision. Prerequisite: consent of instructor and chairman.

490-3 Introduction to Marriage and Family Counseling. Problems and techniques of premarital, marital, divorce, family, and family crisis counseling. Counseling individuals singly, in family units, and in groups. Prerequisite: 227 or equivalent and consent of instructor.

500-3 Research Methods. The study of principles of research design and basic techniques in child and family research. Prerequisite: Guidance and Educational Psychology 505, Mathematics 420 or consent of instructor.

556-3 The Pre-School Child. Growth of the child from birth to six years with emphasis on the various aspects of growth and their interrelationships.

562-3 Child Development through Home and School. The normal, healthy development of children as it takes place in the home and is promoted by the curriculum and other school activities.

566-3 Interpersonal Relationships within the Family. A study of factors that promote satisfactions with the immediate family; planning and preparing teaching units, and source materials in this field.

571-3 Recent Research. Review of selected research in areas of child and family.

572-1 to 3 Special Problems. For qualified students who need to pursue certain topics further than regularly titled courses permit. Prerequisite: consent of chairman.

599-1 to 4 Thesis. Minimum of three hours counted toward a master's degree.

Family Economics and Management

There is no approved graduate program in family economics and management. Students currently enrolled in a major in home economics may continue to receive graduate credit for the courses listed below:

407-1 to 3 Workshop. Designed to aid workers in professions related to use of family resources. Emphasis for each workshop will be stated in the announcement of the course. Every semester.

420-3 Trends in Household Equipment. Design, function, principles of operation, current trends, and ecological problems related to equipment use in household and society are considered. Prerequisite: 320.

430-3 Housing Alternatives. Selected aspects of the housing market and their relationship to changing life styles of households. Structure, operations and performance of the housing market and home building industry, housing finance, and contemporary housing problems and issues are considered. Fall Semester. Prerequisite: 330 or consent of instructor.

445-3 Family Financial Management. Developments in family financial management and the evaluation of methods and procedures for helping families, with emphasis on the role of the consultant. Case studies and simulation, as well as field problems, are included. Fall semester and alternate summers. Prerequisite: 340 and 350, equivalent, or consent of instructor.

451-3 Household Activity Analysis. A study of work methods and place, as well as the

characteristics of the worker, in relation to solving problems of employed, full-time, and handicapped home managers.

480-3 Women in the Home and Labor Market. An evaluation and interpretation of the economic contributions of women in household production and in the labor market. Related issues such as fair employment practices, role conflicts, and legal issues will be considered.

490-1 to 4 Readings. Supervised readings on selected equipment, family or consumer economics, housing, or management topics. Every semester. Prerequisite: six hours of family economics and management and consent of chairperson.

494-1 to 4 Field Experience. Supervised learning experiences in an acceptable employment area. Every semester. Prerequisite: 370 and consent of chairperson.

499-1 Senior Seminar. A study of contemporary issues in the field of family economics and management including the concerns of new professionals entering the field. Not for graduate credit.

500-3 Research Methods. Review of basic scientific methods of research applicable to family economics, management, housing, and equipment. Statement of research problems, collection, analysis, and interpretation of data are included. Fall semester and alternate summers. Prerequisite: statistics or concurrent enrollment.

530-3 Societal Factors in Housing. An analysis of housing as it relates to levels of living in contemporary households. Cultural determinants, community development, governmental policies and programs, and personal and social organization are considered as they relate to family housing. Spring semester. Prerequisite: 430 or consent of instructor.

535-3 Housing Consumption. Housing consumption patterns, housing markets and economic aspects of government housing policies will be analyzed as they will affect family life styles. Composition of household and communities will be of special interest. Prerequisite: 341, Economics 215, or equivalent, and consent of instructor.

540-3 Consumption Trends. Contemporary trends and issues in family income and consumption are evaluated. Spring semester and alternate summers. Prerequisite: 340 or equivalent.

550-3 Advanced Home Management. Readings, observations, projects, and discussions are used in evaluation of current research trends and issues in home management as they reflect family management processes. Fall semester and alternate summers. Prerequisite: 350.

570-3 Seminar in Family Economics and Management. Review and analysis of research in family economics, management, housing, and equipment. Implementation and organization of programs to help families is emphasized. Fall semester and alternate summers.

592-1 to 5 Special Problems. Selection and investigation of a special problem under personal supervision of graduate faculty, approved by the chairperson and instructor. Every semester. Prerequisite: six hours of family economics and management and consent of chairperson.

599-1 to 6 Thesis. Every semester.

Food and Nutrition

There is no approved graduate program in food and nutrition. Students currently enrolled in a major in home economics may continue to receive graduate credit for the courses listed below:

420-3 Recent Developments in Nutrition. Critical study of current scientific literature in nutrition. Prerequisite: 320 or equivalent. Elective Pass/Fail.

421-2 Recent Trends in Food. Critical study of current scientific literature in food. Prerequisite: 320 or equivalent. Elective Pass/Fail.

481-2 to 4 Readings. Supervised readings for qualified students. Prerequisite: 320 or equivalent, consent of instructor and department chairman. Elective Pass/Fail.

490-3 Nutrition and Growth. The study of human nutrition during each phase of the life cycle, prenatal through geriatric. Students elect at least two phases for in-depth study. A general review of basic nutrition is included. Prerequisite: consent of instructor and department chairman. Elective Pass/Fail.

500-3 Research Methods. Study of methods employed in research in food and nutrition. The development of a research design selected on the basis of the interest and need of the student. Field trip. Prerequisite: 420 or equivalent and statistics.

515-1 to 4 (1, 1, 1, 1) Seminar. Participation of staff and students in reporting and discussing research papers, research in progress and current professional meetings. Required for all graduate majors in food and nutrition, one credit per semester. Graded *S/U* only. Prerequisite: 420 or 421.

520-2 Advanced Nutrition. The biochemical and physiological basis of the metabolism of nutrients; current concepts. Prerequisite: 420 or equivalent.

556-3 Advanced Experimental Foods. Individual problems in food research and interpretation of pertinent literature. Prerequisite: 356 or equivalent.

572-2 to 4 (2, 2) Special Problems. Directed research on approved projects in selected

areas of food and nutrition not covered in their thesis or research paper. Graded *S/U* only. Prerequisite: consent of instructor.

599-1 to 6 Thesis. Minimum of four hours to be counted toward a master's degree. Prerequisite: approval of instructor.

Human Resources

410-3 Resources for the Elderly. Recognition and examination of needs, situations, and issues affecting elderly persons; resources and sources of benefits available. Emphasis on techniques and application of information through interaction with the elderly. Prerequisite: two courses in behavioral sciences.

Industrial Technology

There is no graduate degree program offered through industrial technology. Four-hundred-level courses may be taken for graduate credit unless otherwise indicated in the course description.

420-3 Coal Analysis and Inspection. A study of methods and equipment for the inspection and analysis of coal including the techniques for the design of coal-quality experiments. Laboratory. Prerequisite: 365 or appropriate background.

425-3 Advanced Process Design and Control. Extension of other process courses offered. Meets the need of those students who enter the field of manufacturing by giving more emphasis on planning, estimating, and control of industrial processes. Laboratory. Prerequisite: 309, 310.

439-3 Bulk Materials Handling. Study of the various types of equipment used in the mining industry. Estimation of costs and output of equipment used for excavating and transporting earth materials. Prerequisite: appropriate background.

440-3 Manufacturing Policy. Review of all areas covered by the industrial technology program. Includes problems for solution which simulate existing conditions in industry. Students present their solutions to the class and to the instructor in a formal manner. Prerequisite: 358, 365, 375, 382, or consent of instructor.

441-3 Mine-Safety Technology. An in-depth study of the technological implications of the Federal Coal Mine Health and Safety Act. Emphasis is placed on the technology required to operate safely underground coal mines. Prerequisite: appropriate background.

450-3 Industrial Systems Analysis. Teaches the systems required for successful industrial operations. The role of the computer in system design and application is emphasized. Prerequisite: 365, 375, Engineering 222.

460-5 Mining Technology. Mining methods; mine ventilation and pumping systems; mine structures; power distribution; coal-mine development and exploitation. Prerequisite: 360 or appropriate background.

465-4 Industrial Safety. Principles of industrial accident prevention; accident statistics and costs; appraising safety performance; recognizing industrial hazards and recommending safeguards. Includes a study of the Occupational Safety and Health Act and the Coal Mine Health and Safety Act. Prerequisite: senior standing.

466-3 Occupational Safety and Health Standards. Covers the standards, inspection procedures, and compliance requirements covered in the latest revisions of the Occupational Safety and Health Act of 1970. Emphasis is placed on developing the student's ability to detect violations of the standards and recommend corrective safety actions.

492-1 to 6 Special Problems in Industry. Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected industrial problems. Not for graduate credit. Prerequisite: consent of instructor.

Journalism

400-3 History of Journalism. Development of American newspapers, magazines and radio-television with emphasis on cultural, technological, and economic backgrounds of press development. Current press structures and policies will be placed in historical perspective.

401-3 International Communication. An analysis of the development, structure, functions, and current status of media systems in other countries. Emphasis given to studying factors that facilitate or restrict the flow of intranational and international communication.

411-3 Public Affairs Reporting. Covering government and other public agencies, including the city hall, courts, county offices, business, finance, agriculture, labor and other specialized beats. One field trip is required. Cost should not exceed \$20. Prerequisite: 311.

420-3 School Publications. Designed for the prospective high school or junior college journalism teacher or publication director. Deals with practical production problems of school newspapers and yearbooks.

442-3 The Law of Journalism Legal limitations and privileges affecting the mass media to include the law of libel, development of obscenity law, free press and fair trial, contempt of court, right of privacy, advertising and antitrust regulations, copyright, and access to the press. Prerequisite: senior standing.

450-3 Mass Media Management. Basic economic and management theory and application of theory to the management process in the mass media. Individual projects involving analysis of management of a selected medium. Prerequisite: consent of instructor.

451-3 Current Media Problems. Readings and weekly seminar discussions on the role of the journalist in seeking solutions to the problems facing the mass media in the last third of the Twentieth Century. Involves questions of economics, structure, ethics, effects.

479-2 Social Issues and Advertising. Analysis of social issues involving advertising; economic relationships, government and self-regulation, cultural effects, influence on media content and structure, role in democratic processes, international, and other problems and controversies. Prerequisite: senior standing.

490-1 to 6 (1 to 2, 1 to 2, 1 to 2) Readings. Supervised readings on subject matter not covered in regularly scheduled courses. Prerequisite: written consent of instructor and area head.

494-1 to 3 Practicum. Study, observation, and participation in publication or broadcast activities. Not for graduate credit. Prerequisite: consent of instructor and area head.

495-1 to 12 (1 to 6, 1 to 6) Proseminar. Selected seminars investigating media problems or other subjects of topical importance to advanced journalism majors. Seminars will be offered as the need and the interest of students demand. Prerequisite: senior standing.

500-3 Research Methodology in Mass Communication I. Identification of research problems, formulation of concepts and research hypotheses in journalism and mass communication, sampling procedures, design of experimental and survey research.

501-2 Research Methodology in Mass Communication II. Problems of measurement, attitude scaling techniques, questionnaire construction, and bivariate and multivariate methods of data analysis in journalism and mass communication. Prerequisite: 500.

504-3 Foundations of Mass Communication Theory. Conceptual orientation toward analysis of relationships in the mass communication channels. Emphasis on problem identification and relationships between philosophical basis for behavioral analysis of communication and empirical work in the field; reviews of selected literature.

505-2 Theoretical Issues in Mass Communication. Analysis and critique of recent theory and research in mass communication. Examination of trends in research and reviews of selected literature. Prerequisite: 504.

506-3 Significant Studies in Mass Communication Research. A review of a broad selection of early literature in communication research that has provided much of the conceptual basis for empirical studies during the past two decades.

510-2 Literature of Journalism. Critical reading of selected books relating directly and indirectly to journalism from about 1900 to present. Lectures, reviews, and discussion comprise the course work.

511-3 Studies in Journalism History. Critical analysis of literature showing trends and developments in journalism before 1900. Approximately 100 books are examined in the context of social, political, and intellectual history of the times. Lectures, reports, and discussions.

512-2 Press Freedom and Censorship. Study of the progress of press freedom in England and in the United States, with attention to the many attempts at censorship of all kinds.

520-2 Communication and National Development. Examination of a wide range of functions of mass media communications in the process of national development in non-Western countries.

530-2 Historical Research in the Mass Media. Analysis of and practice in scholarly writing in historical areas of the mass media. Consideration of sources, attitudes, data, selection, and verification as related to historical research in mass media. Prerequisite: 511.

540-3 Legal and Governmental Research in the Mass Media. Study of research procedures related to executive, congressional, judicial, and quasi-official reports and documents as they affect the mass media. Focus of the study will be an examination of the legal interrelationship of the government and the media. Prerequisite: 442.

550-1 to 12 (1 to 4, 1 to 4, 1 to 4) Topical Seminar. Seminars on subjects of current interest, with the topics determined through student and faculty request and interest. Topics include audience analysis, communication and social systems, media economics, persuasive communications.

560-3 Seminar: Critical and Persuasive Writing. An analysis of the opinion function of the news media—the editorialist, the opinion columnist, and the critical reviewer—with emphasis upon the theoretical bases of persuasion. Students will study and evaluate various types of persuasive writing and will also write a number of editorials, columns, and reviews.

592-1 to 6 (1 to 2, 1 to 2, 1 to 2) Individual Research. Conduct of research and writing of research reports for projects off an individual nature.

599-1 to 6 Thesis.

600-1 to 32 Dissertation.

Linguistics

The Department of Linguistics offers courses toward the Master of Arts degree in linguistics and the Master of Arts degree in English as a foreign language.

401-4 General Linguistics. Basic concepts and methods of general linguistics. Fundamentals of the nature, structure, and functioning of language. Data manipulation and problem solving. Elective Pass/Fail.

402-7 (3, 3, 1) Phonetics. (a) Theory and practice of articulatory phonetics. (b) Theory and practice of instrumental phonetics. Prerequisite: 402a. (c) Transcription laboratory. Prerequisite: 402a. May be taken singly. Elective Pass/Fail.

403-3 English Phonology. Study of English phonology, both American and British, including phonetics, phonemics, and prosodics. Prerequisite: 300 or 401, and 402a, or consent of department. Elective Pass/Fail.

404-3 American Dialects. Regional variation and social stratification of American English. Phonological and syntactic differences among the major dialects of American English. Prerequisite: one previous course in linguistics. Elective Pass/Fail.

405-4 Phonological Theory. Survey of pre-structural, structural (both American and European), distinctive feature, stratificational and generative phonological theories; phonological universals. Data manipulation and problem solving. Prerequisite: 300 or 401, and 402a. Elective Pass/Fail.

408-4 Syntactic Theory. Basic concepts and formalisms of transformational generative grammar. Data manipulation and problem-solving in English syntax. Prerequisite: 300 or 401, or consent of department. Elective Pass/Fail.

410-10 (5, 5) Intermediate Uncommon Languages. Review of the structure of modern spoken language. Introduction to written language. Emphasis on conversational style. The first semester carries undergraduate credit only. (g-h) Vietnamese, (i-j) Lao, (k-l) Cambodian. Prerequisite: 210 or equivalent.

411-3 The Linguistic Structure of Chinese. (See Chinese 410.)

412-3 The Linguistic Structure of Japanese. (See Japanese 410.)

415-3 Sociolinguistics. History, methodology, and future prospects in the study of social dialectology, linguistic geography, multilingualism, languages in contact, marginal languages, and language planning. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.

420-8 (4, 4) Advanced Uncommon Languages. Advanced conversation and reading of third-year level materials in preparation for classes conducted in the language. (g-h) Vietnamese, (i-j) Lao, (k-l) Cambodian. Prerequisite: 410 or equivalent.

422-3 Contemporary Vietnamese Prose. Open to advanced students. Short stories, novels and essays (main trends and evolution). Emphasis on works of prominent authors since 1920, such as Nguyen V. Vinh, Pham Quynh, H. N. Phach, Nguyen T. Thuat, P. K. Binh, Khai Hung, and the recent generation. Prerequisite: 321 or 410.

423-2 Vietnamese Poetry. Classical and modern poetry. Emphasis on masterpieces and leading figures such as Nguyen Trai, Nguyen Binh Khiem, the authors of Chinh Phu Ngam and Cung Oan, Nguyen Huy Tu, Nguyen Du and the Kim Van Kieu, Nguyen Cong Tru, and the new poetry with the impact foreign poetry had on it. Prerequisite: 310 or 410.

424-2 Modern Vietnamese Drama. Hat boi (Vietnamese Opera), Hat cheo (Popular Theater from North Vietnam), Cai luong (Modernized Opera and Musical), Thoai kich (Modern Theater), and Kich tho (Lyric Theater). Emphasis on the main plays, the stage techniques, and the literary and social meaning of those various forms of Vietnamese theater. Prerequisite: 321 or 410.

430-3 to 6 (3, 3) Grammatical Structures. Detailed analysis of the structure of particular languages. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.

431-3 Structure of the English Verb. An analysis of the English verb system. Special study of the modals and non-finites. Elective Pass/Fail.

440-1 to 6 (1 to 3 per topic) Topics in Linguistics. Selected topics in theoretical and applied linguistics. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.

445-4 Psycholinguistics and Language Teaching I. A broad spectrum introduction to psycholinguistics and its applications to language teaching and learning. Although both first and second language acquisitions are covered for completeness, emphasis is placed on topics relevant to second language acquisition.

- 450-3 to 6 (3, 3) Language Families.** A synchronic survey of particular language families or sub-families. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.
- 453-4 Methods in Teaching English as a Second Language.** Introduces the basic methods of teaching English as a second language, specifically as part of bilingual programs, and presents the theoretical premises and background from the fields of general linguistics, contrastive linguistics, psycholinguistics, education, and sociolinguistics. Elective Pass/Fail.
- 454-2 Observation and Practice in TESL.** Lessons in teaching English as a second language are modeled and demonstrated live and via video-tape. In addition to microteaching and other peer-teaching, students observe ESL/EFL classes and laboratories and do tutoring and practice teaching under supervision as schedulable. Enrollment limited to undergraduates. Mandatory Pass/Fail.
- 455-2 Materials in TESL.** Examination and criticism of currently used textbooks in ELS and bilingual education programs, as well as other printed materials and visual and mechanical aids in teaching English as a second language. Prerequisite: 453 or consent of department. Elective Pass/Fail.
- 456-1 Contrastive Linguistics Practicum.** Examination of the interference of other languages, particularly Spanish, into the English of ESL learners on the levels of phonetics, phonology, morphology syntax, lexicon, semantics, and orthography. Study of written and spoken errors, diagnosis of errors and development of techniques for correction. Prerequisite: 453 or consent of department. Elective Pass/Fail.
- 497-1 to 8 Readings in Linguistics.** Directed readings in selected topics. Prerequisite: consent of department and undergraduate status.
- 501-3 Contrastive Linguistics.** Theory and methodology of contrastive analysis and error analysis. Application of both methodologies to comparison of English syntactic and phonological structures with those of other languages. Prerequisite: 401 or consent of department.
- 504-3 Dialectology.** Materials and methods of areal and social dialectology and linguistic geography. Prerequisite: one previous course in linguistics or consent of department.
- 506-4 Historical Linguistics.** Theories and methods in the study of the history and prehistory of languages and language families. Prerequisite: 405 and 408, or consent of department.
- 510-3 History of Linguistics.** The history of linguistic inquiry from classical times to the present. Prerequisite: one previous course in linguistics or consent of department.
- 530-3 to 6 (3, 3) Historical Grammatical Structures.** History of particular languages or language families. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department.
- 540-1 to 12 (1 to 3 per topic) Studies in Linguistics.** Selected topics in theoretical and applied linguistics. May be repeated to a total of 12 hours of credit with consent of department. Maximum of six hours applicable toward a basic master's degree. Prerequisite: one previous course in linguistics or consent of department.
- 550-4 to 8 (4 per topic) Seminar in Linguistics.** Guided advanced research in either syntax/symantics, generative phonology, socio-linguistics, psycholinguistics, historical linguistics, or other topics. May be repeated to a total of 8 hours of credit with consent of department. Prerequisite: consent of department.
- 570-3 Theory and Methods of EFL/ESL.** Theory and methods of teaching English as a second or foreign language. Recent developments in EFL/ESL; cognitive-code and audio-lingual theories and methodologies.
- 571-2 Language Laboratories in EFL/ESL.** The theory and practice of the language laboratory in EFL/ESL pedagogy. Prerequisite: 570 or consent of department.
- 572-2 Materials Preparation in EFL/ESL.** Theory and practice in development of EFL/ESL texts. Prerequisite: 570 or consent of department.
- 575-2 EFL/ESL Testing.** Theory and construction of standardized and teacher-made tests. Special study of TOEFL and other tests of English as a foreign language. Prerequisite: 570 or consent of department.
- 580-3 Seminar in Special Problems of EFL/ESL.** Prerequisite: 570.
- 581-2 Practicum in EFL/ESL: Oral English.** Class observation and supervised practice teaching in English as a foreign language; meets concurrently with Linguistics 100. Graded S/U only. Prerequisite: consent of department.
- 585-2 Practicum in EFL/ESL: Written English.** Objectives, methods, and materials for Linguistics 101, 102, and 103 and similar courses. Observation and practice under supervision. Graded S/U only. Prerequisite: consent of department.
- 593-1 to 4 Research in Linguistics.** Individual research under graduate faculty guidance. Prerequisite: consent of instructor.
- 596-3 Stylistics.** (See English 596.)
- 597-1 to 8 Readings in Linguistics.** Individual readings in linguistics under graduate faculty guidance. Prerequisite: consent of department.
- 599-1 to 6 Thesis.** Minimum of three hours to be counted toward a master's degree. Prerequisite: consent of department.

Mathematics

400-2 History of Mathematics. An introduction to the development of major mathematical concepts. Particular attention given to the evolution of the abstract concept of space, to the evolution of abstract algebra, to the evolution of the function concept, and to the changes in the concept of rigor in mathematics from 600 B.C. Prerequisite: 319 and 352 or consent of instructor. Elective Pass/Fail.

405-3 Intermediate Ordinary Differential Equations. Topics selected from linear systems, existence and uniqueness for initial value and boundary value problems, oscillation, and stability. Prerequisite: 306. Elective Pass/Fail.

406-3 Eigenfunction Methods in Applied Mathematics. Inner product spaces; orthogonal systems; Bessel's inequality; quadratic forms; Hermitian operators; eigenfunctions and eigenvalues; minimization properties of eigenfunctions; the spectral theorem for a Hermitian matrix; functions of matrices; Sturm-Liouville differential operators; convergence properties of Fourier Series; the Legendre, Laguerre, Hermite, and Tchebycheff families of orthogonal polynomials; functions of Sturm-Liouville operator; Green's functions; the Laplacian operator in 1, 2, and 3 dimensions. Prerequisite: 221 and 305. Elective Pass/Fail.

407-3 Introduction to Partial Differential Equations. First order linear and quasilinear partial differential equations, characteristics, second order linear partial differential equations, classification of types, boundary value and initial value problems, well posed problems, the wave equation, domain of dependence, range of influence, Laplace's equation and Dirichlet problems, the maximum principle, Poisson's integral, fundamental solution of the heat solution. Prerequisite: 305. Elective Pass/Fail.

411-1 to 6 (1 to 3, 1 to 3) Mathematical Topics for Teachers. Variety of short courses in mathematical ideas useful in curriculum enrichment in elementary and secondary mathematics. May be repeated as topics vary. Does not count toward a mathematics major. Elective Pass/Fail.

417-3 Applied Matrix Theory. Matrix algebra and simple applications, simultaneous linear equations, linear dependence and independence of vectors, rank and inverses, determinants, eigenvalues and eigenvectors, quadratic forms, applications. This course may not be counted toward a graduate degree in mathematics. Prerequisite: 139 or 221 or consent of department. Elective Pass/Fail.

419-4 Algebraic Structures I. Groups, subgroups, normal subgroups and homomorphism theorems, permutation groups, finite direct products, finite abelian groups, p-groups and Sylow's theorem, normal and subnormal series, Jordan—Holder theorem. Rings and subrings, divisibility theory in integral domain, polynomial rings. Prerequisite: 319 or consent of department. Elective Pass/Fail.

421-3 Linear Algebra. Fields, vector spaces over fields, triangular and Jordan forms of matrices, dual spaces and tensor products, bilinear forms, inner product spaces. Prerequisite: 221. Elective Pass/Fail.

425-3 Theory of Numbers. Properties of integers, primes, divisibility, congruences, quadratic forms, diophantine equations, and other topics in number theory. Prerequisite: 319 or consent of department. Elective Pass/Fail.

426-3 Introduction to Mathematical Logic. (Same as Philosophy 426.) General introduction to the method of mathematical logic, forming of denials, the statement calculus including the deduction and completeness (with respect to truth tables) theorems, and the predicate calculus including the deduction theorem, deduction techniques; (in the predicate calculus) normal forms and equality, first order theories, first order number theory, consistency, truth (in the model-theoretic sense), completeness theorem (with respect to the model-theoretic definition of validity), independence, categoricity, decidability, and a brief introduction to Gödel's theorem. Prerequisite: 301, 319, 352, or Philosophy 320. Elective Pass/Fail.

432-4 Philosophy of Mathematics. (See Philosophy 432.) Prerequisite: Philosophy 320 or 15 hours of mathematics. Elective Pass/Fail.

433-3 Introduction to Topology. Study of continuity, convergence, compactness, and completeness in the context of metric spaces. Prerequisite: 352 or consent of department. Elective Pass/Fail.

435-3 Elementary Differential Geometry. An introduction to modern differential geometry through the study of curves and surfaces in R^3 . Local curve theory with emphasis on the Serret-Frenet formulas; global curve theory including Fenchel's theorem; local surface theory motivated by curve theory; global surface theory including the Gauss-Bonnet theorem. Prerequisite: 251 and 221. Elective Pass/Fail.

437-3 Elementary Algebraic Topology. Topological spaces; continuous maps. Finite products. Connectivity. Compactness. Manifolds. Classification of surfaces. Homotopic maps. Fundamental group. Covering spaces. Lifting theorem. Prerequisite: 319. Elective Pass/Fail.

445-3 Boolean Algebra and Logical Design. (Same as Computer Science 445.) Boolean algebra with applications to computer logic and circuit design. Simplification algorithms. Sequential circuits and sequential machines. Introduction to error-correcting codes. Prerequisite: 319, 301 or Computer Science 342.

449-3 Combinatorics and Graph Theory. (Same as Computer Science 449.) An introduction to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion. Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 301, or consent of Mathematics Department.

451-3 Introduction to the Theory of Computing. (See Computer Science 451.)

452-4 Advanced Calculus. Fundamental concepts of analysis; infinite series, functions and series of functions, uniform convergence, function of bounded variation, Riemann-Stieltjes integral, functions of several variables, implicit functions and extreme values. Prerequisite: 352 or consent of department. Elective Pass/Fail.

455-3 Introduction to Complex Analysis and Applications. Complex numbers, analytic functions, line integrals, the Cauchy-Goursat theorem and its implications, power series, Laurent series, polar and essential singularities, analytic continuation, contour integration, and residue theorem, conformal mapping, asymptotic expansions. Prerequisite: 251. Elective Pass/Fail.

457-5 Methods of Quantitative Analysis. (Same as Business Administration 451.) Introductory survey of basic quantitative methods necessary for graduate study in business; designed for students with deficiencies in methods of quantitative analysis. Course consists of introduction to calculus, matrix algebra, and probability. Extensive use is made of business examples. Prerequisite: enrollment in Master of Business Administration program or consent of instructor.

460-3 Transformation Geometry. Geometry as the study of properties invariant under congruences, similarities, affine transformations, and projectivities. Prerequisite: 221 and 319. Elective Pass/Fail.

471-3 Introduction to Optimization Techniques. (Same as Computer Science 471.) Nature of optimization problems, General and special purpose methods of optimization, such as linear programming, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 221, 250, Computer Science 202.

472-3 Linear Programming. (Same as Computer Science 472.) Nature and purpose of the model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimality analysis. Prerequisite: 139 or 221; and Computer Science 202.

473-3 Reliability Theory. Formulation of the concept of reliability in terms of probability theory. Failure distributions and failure rates. Elements of renewal theory. Age and block replacement policies, optimal replacement policies for classes of failure distributions. Prerequisite: consent of department. Elective Pass/Fail.

475-6 (3, 3) Numerical Analysis. (Same as Computer Science 464.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 221, 250, Computer Science 202.

480-4 Introduction to Probability. This is a comprehensive introduction to probability theory at a level suited to most upper division undergraduates and first year graduate students. Topics include: event spaces, probability functions, combinatorics, generating functions, conditional probability, independence, random variables, probability distributions, expectations, moments, characteristic functions, inversion formulae, sums of independent random variables, the multivariate normal distributions, the central limit theorem, the weak and strong laws of large numbers, Monte Carlo applications. Prerequisite: 250. Elective Pass/Fail.

481-3 Elements of Stochastic Processes. An introduction, including normal, Poisson, and Markov processes. Prerequisite: 480. Elective Pass/Fail.

483-3 Introduction to Mathematical Statistics. A development of the elements of statistical theory. Probability axioms, probability distributions, moments and moment generating functions. Statistical inference, estimation, testing hypotheses. Not for graduate credit in mathematics. Prerequisite: 250. Elective Pass/Fail.

486-3 Design of Experiments. A mathematical model development of the statistical design and analysis of experiments with emphasis on practical applications. Includes completely randomized, randomized block, Latin square, split plot, incomplete block, and response surface designs, as well as factorial and fractional factorial experiments. Prerequisite: 483. Elective Pass/Fail.

487-3 Nonparametric Methods in Statistics. A discussion of confidence intervals and tests of hypotheses where no functional form is postulated for the population. Prerequisite: 483 or 480. Elective Pass/Fail.

488-3 Linear Statistical Models. An introduction to the general linear model in both the

univariate and multivariate cases and its applications. Included is a basic discussion of linear models, estimable functions, estimation spaces, error spaces, and such applications as regression analysis, growth curve analysis, discriminant analysis and canonical analysis. Prerequisite: 221 and 483. Elective Pass/Fail.

495-1 to 6 Special Topics in Mathematics. Individual study or small group discussions in special areas of interest under the direction of a member of the faculty. Prerequisite: consent of chairman and instructor. Elective Pass/Fail.

501-3 Real Analysis. Structure of sets of real numbers; measure spaces; measurable functions; integration; modes of convergence; Caratheodory process; product measures; Fubini's theorem; Lebesgue measure and integral; differentiation; signed measures; Radon-Nikodym theorem. Prerequisite: 452.

505-3 Ordinary Differential Equations. Existence and uniqueness theorems; general properties of solutions; linear systems; geometric theory of nonlinear equations; stability; self-adjoint boundary value problems; oscillation theorems. Prerequisite: 452 and 421 or consent of instructor.

506-1 to 6 Advanced Topics in Ordinary Differential Equations. Topics chosen from: stability; oscillations; functional differential equations; perturbations; limit point and limit circle; boundary value problems; other areas in ordinary differential equations as the instructor desires. Prerequisite: 505 or consent of instructor.

507-3 Partial Differential Equations. Origins of PDE's. The wave equation, potential equation, and heat equation. Initial and boundary value problems and questions of well posedness. Fundamental solutions and the related Riemann, Green, and Neumann functions. Classification of linear and quasilinear PDE's. Theory of characteristics. The Cauchy-Kowalowski theorem. The max-min principle, the energy-integral method, and questions of uniqueness. Questions of existence. Prerequisite: 452.

508-3 Integral Equations. Origins of integral equations. Volterra equations of the first and second kind. Fredholm equations of the first and second kind. Fredholm's alternative theorem. The resolvent equation. Orthonormal eigensystems of a symmetric Fredholm operator. The Hilbert-Schmidt expansion theorem and its applications to Sturm-Liouville problems. Exact and approximation methods of solution. Prerequisite: 452 and 406 or 421.

510-3 Mathematical Logic. Review of elementary logic; incompleteness and undecidability results of Gödel, Church, and Tarski; consistency of arithmetic. Prerequisite: 426.

512-3 to 12 (3 per topic per semester) Topics in Mathematical Logic. (a) Model Theory. (b) Axiomatic Set Theory. (c) Combinatory Logic. (d) Proof Theory. Student can take up to a maximum of twelve hours in combination of topics. Prerequisite: consent of instructor.

514-4 General Statistical Analysis. Concepts of probability: probability axioms, random variables, probability distributions, moments. Statistical estimation: criteria for estimators, sampling distributions of estimators, confidence intervals. Tests of significance: normal theory tests, power, robustness, nonparametric procedures. Relationships between purpose of experiment, experiment, data, and data analysis. This course does not give credit toward a mathematics major. Prerequisite: 111.

515-4 Linear and Multivariate Statistical Methods. Analysis of the general linear model: regression, analysis of variance, and analysis of covariance. Principal component analysis. Discriminant analysis. Analysis of the multivariate general linear model. Basic experimental designs and probability sampling procedures. This course does not give credit toward a mathematics major. Prerequisite: 514.

516-8 (4, 4) Statistical Analysis in the Social Sciences. (a) Descriptive statistics; graphic display of data; concepts of probability; statistical estimation, and hypothesis testing. Applications to social science data. (b) Matrix algebra; general linear model; multivariate statistics, ordinal and nominal measures of associations, and causal modeling. Applications to social science data. This course does not give credit toward a mathematics major. Prerequisite: one year of high school algebra or the equivalent.

520-3 Algebraic Structures. Algebraic field extensions, splitting fields. algebraic closure, separable and inseparable extensions, the fundamental theorem of Galois theory, solvability by radicals. Tensor products of modules, finitely generated modules over principal ideal domain, applications to abelian groups, tensor algebras, exterior algebras, derivation, traces and dual modules. Prerequisite: 419.

t22-3 to 9 per topic (3, 3, 3) Advanced Topics in Algebra. (a) Ring Theory: primitive rings, radicals, completely reducible rings, Artinian and Noetherian rings, projective and injective modules, complete ring of quotients, classic ring of quotients, Faith Utumi theorem. (b) Commutative Algebra: ideal theory of Noetherian rings, valuations localizations, complete local rings, Dedekind domain. (c) Group Theory: selected topics from one or more of the following: p-groups, solvable groups, simple groups. (d) Group Representations: semisimplicity of the group algebra, characters, one dimensional representations, orthogonality relations induced characters, induced representations, Brauer's theorem. (e) Homological Algebra: Projective and injective modules, homological dimension, derived functors, spectral sequences of a composite functor, applications. (f) Lie Algebras: Theory of Nilpotent and Solvable Lie algebras including Lie's and Engel's theorems; E. Cartan's classification of complex simple Lie algebras. Prerequisite: 520.

525-3 Number Theory. Introduction to modern analytic and algebraic techniques used in

the study of quadratic forms, the distribution of prime numbers, diophantine approximations, and other topics of classical number theory. Prerequisite: consent of instructor.

526-3 to 9 per topic (3, 3, 3) Advanced Topics in Number Theory. (a) Analytic number theory. (b) Algebraic number theory. (c) Additive number theory. (d) Diophantine approximations. (e) Dirichlet series and automorphic forms. Prerequisite: consent of instructor.

528-3 Formal Languages and Automata. (Same as Computer Science 553.) Algebraic analysis of automata with emphasis on semigroup and decomposition theory. Probabilistic automata. Grammars including regular, context-free, context sensitive and type 0. Normal forms, restricted grammars. Closure properties. The relation between grammars and automata. Basic decision problems. Prerequisite: 451.

529-3 Theory of Computability. (See Computer Science 555.) Prerequisite: 451.

530-3 General Topology. Topological spaces, continuous functions, product topology, convergence, separation and countability, compactness, connectedness, local properties, metrizability, compact-open topology. Prerequisite: 433, 452.

531-3 Algebraic Topology. Simplicial complexes. Simplicial approximation. Chain complexes. Simplicial homology. Singular homology. Applications to spheres and Euclidean spaces. Universal coefficient theorem. Cohomology. Prerequisite: 419, 433, or 530.

532-3 to 9 per topic (3, 3, 3) Advanced Topics in Topology. (a) General Topology: topics chosen from topological groups, categorical topology, topological dynamics, uniform spaces, and others. (b) Algebraic Topology: topics chosen from homotopy theory, homology, and cohomology, fiber bundles, sheaf theory, and others. Prerequisite: consent of instructor.

536-3 Differential Geometry. Basic manifold theory, linear connections, Riemannian geometry, DeRham cohomology, applications. Prerequisite: 421, 433 or 434 or 530.

537-3 to 9 per topic (3, 3, 3) Advanced Topics in the Topology and Geometry of Manifolds. (a) Differential Topology: topics chosen from Sard's Theorem, mod 2 and Brouwer degree. Index theory, Cobordism theory, Morse theory, Exotic Spheres, Poincare duality and others. (b) Differential Geometry: topics chosen from Hodge theory, complex manifolds, Riemannian geometry, connections on fiber bundles, Lie groups and others. (c) Topological Manifolds; orientation of manifolds; cup and cap products; Poincare duality; Alexander duality; Lefschetz duality.

550-1 to 6 per topic (1 to 3 per semester) Seminar. Supervised study and preparation of reports on assigned topics. Reports presented for class discussion. (a) Algebra. (b) Geometry. (c) Analysis. (d) Probability and Statistics. (e) Mathematics Education. (f) Logic and Foundations. (g) Topology. (h) Applied Mathematics. (i) Differential Equations. (j) Number Theory. (k) Master of Science seminar. Prerequisite: consent of instructor.

551-3 Introduction to Functional Analysis. Inner product and normed spaces; Hahn-Banach theorem; L^p spaces; continuous function spaces; dual spaces; uniform boundedness principle; open mapping and closed graph theorems; fixed point theorems; spectral theorem. Prerequisite: 433, 501.

to 9 per topic (3, 3, 3) Special Topics in Analysis. (a) Harmonic Analysis. (b) Approximation Theory. (c) Advanced Complex Variables. Prerequisite: consent of instructor.

553-3 to 9 (3, 3, 3) Special Topics in Functional Analysis. (a) Topological Vector Spaces. (b) Operator Theory. (c) Banach Algebras. (d) Integration Theory. (e) Distribution Theory. (f) Abstract Harmonic Analysis. Prerequisite: consent of instructor.

555-3 Complex Variables. Extended complex plane; Cauchy-Riemann equations; conformality; analytic continuation; power series; elementary functions; Cauchy integral theorem and consequences; Cauchy integral formula; maximum modulus principle; Liouville's theorems; Laurent expansion; residue theorem and evaluation of real integrals; principle of argument; Rouché's theorem. Prerequisite: 452.

560-3 Calculus of Variations. The basic problems of calculus of variations. The classical necessary conditions and their application. Canonical form of the Euler-Lagrange equations and Hamilton's principle. Fields and sufficient condition. Pontryagin's necessary condition and its application to control theory and to the classical problems of the calculus of variations. Prerequisite: 452.

567-6 (3, 3) Econometrics I and II. (Same as Economics 567.) (a) Linear regression analysis as applied to single equation economic models. Problems of least squares, maximum likelihood, and Bayesian estimation techniques in stochastic economic models. (b) Elements of asymptotic distribution theory and estimation techniques in multiple equation economic models. Take in a,b, sequence except with consent of instructor. Prerequisite: 417 or 421 and 483 or 514.

572-3 to 9 per topic (3, 3, 3) Advanced Numerical Analysis. (Same as Computer Science 564.) Selected topics chosen from such areas of numerical analysis as: approximation theory, numerical solution of initial value problems; numerical solution of boundary value problems, numerical linear algebra, numerical methods of optimization, functional analytic methods. Prerequisite: consent of instructor.

580-3 Statistical Theory. An introduction to mathematical statistics. Estimation theory including such topics as the Cramer-Rao and Chapman-Robbins inequalities, and the Rao-Blackwell theorem. Testing hypotheses with emphasis on the monotone likelihood ratio and

the exponential family. A short introduction to Bayes and other decision procedures. Prerequisite: 480.

581-3 Probability. General probability spaces, review of measure and integration; product spaces, product measures, Fubini's Theorem. Probability and random variables: induced measures, distribution functions, expectations, types of convergence, independence, characteristic functions. Sums of independent random variables: tail events and tail functions; Borel Cantelli lemma, zero-one law; Kolmogorov's inequality, convergence of series, the Strong Law of Large Numbers. Prerequisite: a concurrent course in real variables (501).

582-3 to 6 per topic (3, 3) Advanced Topics in Probability and Statistics. (a) Probability. Additional topics in probability theory which can include one or more of the following: the Law of the Iterated Logarithm; arc sin Law; the ergodic theorem; problems in random walk and discrete Markov chains; Martingales; Brownian motion. In some cases a considerable proportion of time can be devoted to the General Central Limit Problem-Infinately Divisible Distributions. (b) Statistics. Topics presented will depend upon the needs of advanced students in statistics and the interests of the instructor. Generally, there will be presentation of background material in statistical decision theory. Topics can include: Multiple decision procedures; sequential analysis; advanced multivariate theory; non-parametric theory; order statistics. Prerequisite: 581 for (a) and both 580 and 501 for (b).

595-1 to 6 per topic Special Project. An individual project, including a written report. (a) in algebra; (b) in geometry; (c) in analysis; (d) in probability and statistics; (e) in mathematics education; (f) in logic and foundations; (g) in topology; (h) in applied mathematics; (i) in differential equations; (j) in number theory. Graded *S/U* only. Prerequisite: consent of instructor.

599-1 to 6 Thesis. Minimum of three hours to be counted toward the Master of Arts degree.

600-1 to 30 Dissertation. Minimum of 24 hours to be earned for the Doctor of Philosophy degree.

Medical Education Preparation

No graduate degree program is offered through medical education preparation. Four-hundred-level courses may be taken for graduate credit only with written permission of the relevant department and the graduate dean.

400-1 to 6 (1 per semester) Medprep Seminar. Seminar on social, professional, and scientific issues of interest to students planning a career in medicine or dentistry. Topics: (a) Orientation; (b) Medical/dental seminar. Required of Medprep participants. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to medprep students. Must be taken in a,b sequence. Mandatory Pass/Fail.

401-1 to 20 (1 to 2 per area) Medprep Basic Skills. Focus on skills critical for academic success in preprofessional and professional training. Areas: (a) Learning skills; (b) Science process skills; (c) Quantitative skills; (d) Perceptual motor skills; (e) Interpersonal skills; (f) Reading skills; (g) Written communication skills; (h) Vocabulary skills; (i) Speed reading; (j) Other. All areas required or proficiency demonstrated within the first year in program. Not for graduate credit. Prerequisite: restricted to Medprep students. Areas c, d, e, f, g, and i are Mandatory Pass/Fail.

402-1 to 12 (1 to 2 per topic) Medprep Special Problems. Seminars, workshops, lectures, and field experiences related to preparing the student for medical/dental school and careers in medicine or dentistry. Topics: (a) MCAT/DAT orientation; (b) Research seminar; (c) Clinical experience; (d) Independent research; (e) Independent readings; (f) Other. Topic(b) required of all medprep participants. May be taken for graduate credit only with written permission of the relevant department and graduate dean. Prerequisite: restricted to medprep students. Topic(c) Mandatory Pass/Fail.

403-1 to 15 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3) Medprep Biology Tutorial. Depending on individual need content will be remedial, supplementary to concurrent biological science courses, or additional permitting acceleration. Sections will be (a) Genetics; (b) Anatomy, (c) Physiology, (d) Embryology, (e) Microbiology, (f) Zoology, (g) Special. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to medprep students or consent of instructor.

404-1 to 14 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3; 1 to 3) Medprep Chemistry Tutorial. Depending on individual need content will be remedial; supplementary to concurrent preprofessional chemistry courses (Chemistry 222a,b; 334 and 346; and 450) or additional permitting acceleration. Sections will be (a,b) Inorganic; (c,d) Organic; (e) Biochemistry; (f) Other. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to medprep students.

405-1 to 4 (1 to 2; 1 to 2) Medprep Physics Tutorial. Depending on individual need content will be remedial, supplementary to concurrent preprofessional physics courses or additional permitting acceleration. Sections will correspond to two semester physics sequence. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to medprep students.

Microbiology

403-2 Medical Bacteriology Lecture. A survey of the mechanisms of infection, epidemiology, and immunity and the specific application of these principles to the symptomatology, diagnosis, treatment, and control of the more common bacterial infections of man. Two hours lecture. Fall semester. Prerequisite: 301.

404-2 Medical Bacteriology Laboratory. Procedures for the collection and handling of medical specimens for microbial examination and for cultivation and identification of the pathogenic organisms by their morphological, biochemical, and serological characteristics and the fundamental role of the bacteriologist in the diagnosis of infectious diseases. Four hours laboratory. Fall semester. Prerequisite: 403 or concurrent enrollment.

421-3 Foods and Industrial Microbiology Lecture. The relationships of microorganisms to the preparation and preservation of foods; their application to the industrial production of beverages, foods, antibiotics, and other commercial products. Consideration of sanitation, pollution, and recycling of waste products into useful materials. Pure food and drug regulations. Three hours lecture. Prerequisite: 301.

422-2 Foods and Industrial Microbiology Laboratory. Methods for preparation, preservation, sanitary inspection, and analyses of foods and industrial products. Four hours laboratory. Prerequisite: 421 or concurrent enrollment.

425-4 (2, 2) Biochemistry and Physiology of Microorganisms Lecture. Chemical composition, cellular structure, and metabolism of microorganisms. Prerequisite: organic chemistry.

426-4 (2, 2) Biochemistry and Physiology of Microorganisms Laboratory. Prerequisite: 425a,b or concurrent enrollment.

441-3 Virology Lecture. General properties; classification and multiplication of bacterial and animal viruses; lysogeny; immunological and serological reactions; relation to viruses to cancer; consideration of selected viral diseases of animals. Prerequisite: 301 and 302.

422-2 Virology Laboratory. Tissue culture methods, multiplication and assay of animal and bacterial viruses, purification, electron microscopy, interference, immunity. Five hours laboratory. Prerequisite: 441 or concurrent enrollment.

451-3 Immunology Lecture. Natural and acquired immunity. Antigens, antibodies, and antigen-antibody reactions in vitro and in vivo. Three hours lecture. Prerequisite: 403.

452-2 Immunology Laboratory. Natural defense mechanism and immune response, preparation of antigens and antibodies, serological reactions, conjugated antibodies, electrophoresis, immunological reactions in vivo. Five hours laboratory. Prerequisite: 451 or concurrent enrollment.

453-3 Clinical Microbiology and Immunology Lecture. Lectures dealing with the fundamentals and clinical applications of microbiology and immunology and the properties, pathogenesis and control of bacterial, viral, and mycotic infections in people. Three hours lecture. No limit of enrollment. Prerequisite: 403, 441, and 451.

454-2 Clinical Microbiology and Immunology Laboratory. Methods and procedures in the clinical diagnosis of microbiologic and immunologic diseases in people. Four hours laboratory. Enrollment limited to 12. Prerequisite: 404, 442, and 452, consent of instructor, and 453 or concurrent enrollment.

460-3 Genetics of Bacteria and Viruses Lecture. Genetic mechanisms, mutation, transformation, recombination, transduction, lysogeny, phenotypic mixing, and reactivation phenomena. Three hours lecture. Prerequisite: 301.

461-3 Genetics of Bacteria and Viruses Laboratory. Genetic mechanisms, mutation, transformation, recombination, transduction, lysogeny, phenotypic mixing, and reactivation phenomena. Six hours laboratory. Prerequisite: 460 or concurrent enrollment.

462-2 Fungal Genetics Lecture. Mendelian and molecular genetics of molds and yeasts. Mutant induction, sexual crosses, tetrad analysis, linkage, and mapping. Two hours lecture. Prerequisite: Biology 305.

463-2 Fungal Genetics Laboratory. Four hours laboratory. Prerequisite: 462 or concurrent enrollment, and consent of instructor.

490-1 to 3 Undergraduate Research Participation. Investigation of a problem either individually or as part of a research group under the direction of a member of the faculty. Prerequisite: 3.0 grade point average in microbiology and consent of instructor.

500-1 Seminar. Microbiology departmental seminar. Graded *S/U* only. Prerequisite: graduate standing.

502-3 Evolution of Genetic Thought. A critical examination of the development of genetic thought. Three hours lecture/discussion. To be offered alternate years with 562. Prerequisite: Biology 305.

504-3 Methods of Microbiological Research. Problem definition, experimental design, and research methods in specific areas of microbiology. Lecture and laboratory hours to be arranged.

505-1 Special Topics in Microbiology. Discussion of current research in specific areas of microbiology. One hour of group discussion per week. Prerequisite: consent of instructor.

511-1 to 7 Research. Prerequisite: consent of instructor.

520-2 Advanced Microbial Physiology and Control Mechanisms. The physiology, biochemistry, and genetics of microbial regulatory mechanisms. Topics include transport phenomena, catabolite and nitrogen repression, the stringent response, and autoregulatory phenomena. Two lectures per week. Prerequisite: 425a and b, or Chemistry 451a and b, or permission.

528-1 to 3 Readings in Microbiology. Supervised readings for qualified graduate students. Prerequisite: consent of instructor.

540-3 Advanced Virology. Interactions between bacterial and animal viruses and their host cells; sequential synthesis of macromolecular components of viruses; synthesis of interferon; experimental carcinogenesis; genetic recombination among viruses. Three hours lecture. Offered in alternate years with 542. Prerequisite: 441.

541-3 Advanced Virology Laboratory. Experiments to monitor synthesis of macromolecular components of viruses. Animal cell virology; tissue culture analyzed and practiced in depth; karyotyping; viral growth and purification; aqueous polymer phase separation, ultracentrifugation, calcium phosphate chromatography, and phenol extraction techniques covered; biochemical analysis of viral macromolecules. Offered in alternate years with 543. Prerequisite: 540.

542-3 Molecular Virology. Interactions at the molecular level between tumorigenic and nontumorigenic DNA and RNA viruses and host cells, biochemical analysis of the growth cycle, uncoating, synthesis of virus-specified messenger RNA, enzymes and structural proteins, replication of viral nucleic acid and maturation. Three hours lecture. Offered in alternate years with 540. Prerequisite: 541.

543-3 Molecular Virology Laboratory. Characterization of viruses and their constituents; physicochemical properties, synthesis of nucleic acids and proteins; induction of release of viruses from transformed cells; differentiation of courses of viral components; studies of various species of nucleic acids by such methods as sedimentation velocity, ultracentrifugation, pulse and pulse chase experiment, and polyacrylamide gel electrophoresis. Offered in alternate years with 541. Prerequisite: 541.

551-3 Advanced Immunology. A lecture course that intensively considers the most recent developments in antibody structure, antigenic analysis and antigen-antibody reactions. A special focus will be on the use of immunology as a research tool. Prerequisite: 451 and 452, or equivalent, or consent of instructor.

562-2 Molecular Genetics. Fundamentals, including discussions of current research of replication, transcription, translation, mutation, suppression, repression, and their interaction and interdependence. To be offered alternate years with 502. Prerequisite: 425 and a 400 level course in genetics.

564-2 Bacterial Sexuality. Populations of bacteria and their symbionts considered as adaptive entities. Stress processes and consequences of gene flow from a general systems viewpoint. Two lecture/discussions per week. Prerequisite: Biology 305 and Microbiology 460 or Biology 305, Microbiology 302 and another microbial genetics or molecular biology course; or consent of instructor.

599-1 to 3 Thesis. Prerequisite: consent of instructor.

600-1 to 12 Dissertation. Prerequisite: consent of instructor.

Mining Engineering

401-1 Introduction to Mining Engineering. A broad treatment of the importance of coal and its products in the modern society. Analyzing the markets for coal and its products. Mining operations and related environmental impacts. Prerequisite: graduate or senior standing in engineering disciplines.

410-3 Mine Extraction Systems. Study of coal property evaluation. Surface and underground mining methods. Mining production and its ancillary systems and subsystems. Prerequisite: graduate or senior standing in engineering disciplines.

411-2 Mine Machinery. Analysis and design of underground and surface mining machinery. Equipment and parts selection. System development. Preventive maintenance. Prerequisite: 410.

413-2 Mine Power Systems. Study of electrical, hydraulic, and pneumatic mine power systems. Selection and design of power systems and their components. Related economics and decision making criteria. Prerequisite: 410, and Engineering 385, or equivalent, instructors consent.

415-2 Surface Mining and Land Reclamation. Study of surface mining methods and their elements. Surface mine design. Land reclamation. Economics of mining and reclamation. Prerequisite: graduate or senior standing in engineering disciplines.

420-2 Coal Preparation and Waste Treatment. Impurities in coal and their impact on the market. Impurities liberation and separation methods. Product preparation. Coal washability characteristics. Flow sheet development. Recovery of coal from tailings, slurry ponds and mine waste. Economics of coal preparation. Prerequisite: graduate or senior standing in engineering disciplines.

421-2 Coal Conversion and Combustion Processes. Overview of major present-day and proposed processes converting coal to other energy forms (gaseous or liquid fuels, coke, steam, electricity, etc.). The physical and chemical properties of coal and the chemical reaction relationships which affect the conversion process paths. Process design aspects of coal-fed boilers, coal coking ovens and coal gasification/liquefaction reactor systems. Environmental and cost considerations related to the construction of coal conversion plants. Prerequisite: graduate or senior standing in scientific discipline.

510-2 Strata Control and Rock Mechanics. A unified treatment of rock mechanics theories and their applications to coal mine strata control. Physical geology of coal measures. Subsidence. Stress and analysis and pressure distribution around mine openings. Mine roof support systems. Ground stability and control. Prerequisite: 410, Geology 220, Engineering 311.

511-2 Advanced Strata Control. Application of rock mechanics to design of strata control systems in room and pillar, longwall, and shortwall mining methods and to soil and rock slopes in the surface mining methods. Subsidence and minimizing structural damage due to subsidence. Prerequisite: 510.

520-2 Mine Ventilation Design and Environment Control. Study of the theories and practice of natural and forced mine ventilation. Fan and mine characteristics. Ventilation network analysis. Mine ventilation design and problem analysis. Dust characteristics and control. Noise control. Mine illumination. Prerequisite: 410 and Engineering 313.

521-2 Material Handling and Mine Drainage. Study of material handling and waste disposal methods. Material handling systems selection. Systems design and development. Material handling economics. Mine drainage systems. Prerequisite: 410 and Engineering 313.

530-3 Mine Management. Study of basic management principles, labor relations and coal wage agreement. Costing methods and cost control. Operations organization and performance analysis. Prerequisite: consent of instructor.

550-1 to 3 Internship. Placement in an approved setting, e.g., at a mine or other mining related operation. Required of all students in mining engineering. Prerequisite: graduate standing.

580-1 to 2 Seminar. Collective and/or individual studies in coal extraction or utilization.

592-1 to 5 Special Investigations. Special studies of coal extraction or utilization problems.

599-1 to 6 Thesis.

Molecular Science

400-10 (5, 5) The Mathematical and Physical Basis of Molecular Science. A survey of topics in mathematics, physics, and chemistry relevant to molecular science. (a) Topics are drawn from classical mechanics, thermodynamics, and statistical thermodynamics. (b) Topics are drawn from classical electromagnetic theory, chemical kinetics, and quantum mechanics. The mathematics appropriate and necessary to the discussion of these topics is presented in an integrated manner throughout the course. Prerequisite: consent of the molecular science program chairman.

500-5 The Biological Basis of Molecular Science. A survey of topics in biology relevant to molecular science. Areas covered include supramolecular structure, structure of cell matrix, water structure and consideration of energy flux in living systems. Prerequisite: 400 and consent of the molecular science program chairman.

592-1 Colloquy in Molecular Science. Required each semester of all resident students who have been admitted to advanced study in molecular science. Weekly conference on current research and recent literature of the field.

597-2 to 30 Selected Topics in Molecular Science. Prerequisite: admission to the molecular science doctoral program and consent of instructor.

598-2 to 16 Special Projects in Molecular Science. Prerequisite: admission to the Molecular science doctoral program and consent of instructor.

600-1 to 36 (1 to 16 per semester) Dissertation. Hours and credit to be arranged by the chairman. Prerequisite: admission to advanced study in molecular science.

Music

Courses in this department may require the purchase of music literature and other incidental supplies.

400-1 to 2 (1, 1) Performance Techniques. Individual instruction in any secondary applied field. Designed to provide added depth of preparation for teaching instrumental and vocal music. Prerequisite: completion of 340 level or the equivalent in some field of applied music.

407-2 Modal Counterpoint. Study of Renaissance contrapuntal techniques. Extensive writing practice, and analysis of stylistic models. Prerequisite: 207.

410-6 (3, 3) Ethnomusicology. (Same as Anthropology 410h,i). (h) Oceania, Asia, and Africa, (i) Middle East, Europe, and the New World.

414-1 to 8 (1 to 2 per semester) Collegium Musicum. For experienced singers and instrumentalists. Emphasis upon practical study of historical music literature of the Renaissance, and Baroque eras. Counts as a "major ensemble" for juniors and seniors.

420-1 to 2 (1, 1) Instrument Repair. A shop-laboratory course dealing with the selection, tuning, adjustment, maintenance, and repair of musical instruments.

421-2 Advanced Analysis. Structure, form, and design in music as the coherent organization of all of its factors. Analysis of works chosen from a variety of styles and genres. Prerequisite: 321.

430-1 Jazz Arranging. Methods of scoring for popular groups. Practice in scoring arrangements and/or original compositions for jazz ensembles. Prerequisite: 324 or prior consent of instructor.

440-1, 2, or 4 Applied Music. Applied music for graduate credit is offered at the 400 and 500 levels in the areas listed below. May be repeated for credit as long as passing grade is maintained. Student must be concurrently enrolled in one of the performance groups. Prerequisite: for 440, 540: two semesters of C or better at previous level, or consent of applied jury. Music majors and minors enroll for two credits on their principal instrument, taking one half-hour private lesson and studio class, Mondays at 10:00. Those with prior approval by their applied jury for the specialization in performance enroll for four credits taking two half-hour private lessons and the studio class each week. Non-music majors or minors, and those music majors taking a second instrument, enroll for one credit, taking one private or class lesson per week. Six hours of individual practice per week required for each lesson. For shorter terms, credit is reduced or lesson time is increased proportionately.

- | | | |
|--------------|---------------|----------------|
| a. Flute | h. Trombone | o. String Bass |
| b. Oboe | i. Baritone | p. Voice |
| c. Clarinet | j. Tuba | q. Piano |
| d. Bassoon | k. Percussion | r. Organ |
| e. Saxophone | l. Violin | s. Harpsichord |
| f. Horn | m. Viola | t. Guitar |
| g. Trumpet | n. Cello | u. Recorder |

447-4 (2, 2) Electronic Music. (a) Introduction to classical studio equipment and techniques; use of voltage controlled equipment. Individual laboratory experience available. (b) Emphasis upon creative projects, more sophisticated sound experimentation, and analysis. Enrollment limited. Must be taken in a,b sequence. Prerequisite: 280 or GSA 361 or consent of instructor.

453-2 to 4 (2 per semester) Advanced Topics in Choral Music. Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. Designed for experienced teachers and advanced students.

454-2 to 4 (2 per semester) Advanced Topics in Instrumental Music. Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. Designed for experienced teachers and advanced students.

455-2 to 4 (2 per semester) Advanced Topics in Elementary School Music. Practicum in the selection and use of materials for the elementary school program. Study of techniques for achieving balanced musical growth. Designed for experienced teachers and advanced students.

456-4 (2, 2) Music for Exceptional Children. (Same as Special Education 456.) (a) Theories and techniques for therapeutic and recreational use of music with physically and mentally handicapped children. Includes keyboard, guitar, and tuned and untuned classroom instruments. (b) Applications for the gifted, emotionally disturbed, and culturally disadvantaged child. Take in sequence. Prerequisite: 302 or prior consent of instructor.

460-3 Music Aesthetics and Appreciation. The significance of music for people. Critical theories in the writings of philosophers of music and art from Plato through Dewey and Cage are related to principles and methods for communicating an understanding of music in schools and in society.

461-3 Applied Music Pedagogy. Specialized problems and techniques employed in studio teaching of any particular field of musical performance. Study of music literature appropriate for the various levels of performance. Opportunity, as feasible, for supervised instruction of pupils. Meets with appropriate instructor, individually or in groups.

468-2 to 4 (2, 2) Music Productions. Practicum in the techniques for staging operas and musicals.

472-2 Chamber Music Literature. A study of literature for the principal types of chamber music groups.

475-3 Baroque Music. The development of vocal and instrumental music in the period 1600-1750, from Monteverdi to Bach and Handel. Oratorio and Cantata, the influence of opera, sonata, suite, and concerto. Prerequisite: For undergraduate enrollment: 357 a or b. For non-music majors: prior consent of instructor.

476-3 Classical Music. Development of the sonata, symphony, concerto, and chamber music in the 18th and early 19th centuries, with emphasis on the music of Haydn, Mozart, and Beethoven. Prerequisite: For undergraduate enrollment: 357 a or b. For non-music majors: prior consent of instructor.

477-3 Romantic Music. Development of the symphony and sonata forms, chamber music, and vocal music in the 19th and early 20th centuries. Rise of nationalism and impressionism. Prerequisite: For undergraduate enrollment: 357 a or b. For non-music majors: prior consent of instructor.

479-2 to 4 (2 per topic) Solo Performance Literature. Topics presented will depend upon the needs of students and upon instructors scheduled. Areas: (a) Piano literature, including an introductory study of harpsichord music; (b) Organ literature, in relation to the history of the instrument; (c) Song literature; (d) Guitar and lute literature; (e) Solo string literature; (f) Solo wind literature.

480-2 to 4 (2, 2) Advanced Composition. Original composition involving the larger media. Individual instruction. Prerequisite: 380-4.

481-1 to 4 Readings in Music Theory. Assigned readings and reporting of materials pertaining to a particular phase of music theory in historical perspective. Approximately three hour's preparation per week per credit (adjusted for shorter sessions). Prerequisite: 321 and 322 or prior consent of instructor.

482-1 to 4 Readings in Music History and Literature. Assigned readings and reporting of materials pertaining to a particular phase of history or literature. Approximately three hours of preparation per week per credit. Prerequisite: 357a and b, or prior consent of instructor.

483-1 to 4 Readings in Music Education. Assigned readings and reporting of materials pertaining to a particular phase of music education. Approximately three hours preparation per week per credit (adjusted for shorter sessions.)

498-2 to 4 (2, 2) Recital. Preparation and presentation of a full solo recital in any applied field. Prerequisite: prior or concurrent registration in 440 and approval of applied jury.

499-1 to 8 Independent Study. Original investigation of selected problems in music and music education with faculty guidance. Project planned to occupy approximately three hours preparation per week per credit (adjusted for shorter sessions). Prerequisite: prior consent of selected instructor.

501-3 Music Bibliography and Research. Bibliographic materials for graduate study in music theory, history, education, and music performance. Approaches to historical and critical research and scholarly writing on music.

502-4 (2, 2) Analytic Techniques. Analysis of representative works chosen from the Baroque, Classical, Romantic, and Modern eras. Prerequisite: graduate standing in music or prior consent of instructor.

503-3 Scientific Evaluation and Research in Music. Quantified research concepts and vocabulary; measurement theory and techniques for evaluating and testing musical aptitude and achievement; investigation of acoustical perception; survey of current scientific research in music. A research project is required.

509-2 History and Philosophy of Music Education. The evolution of school music and its changing relationship to the individual, to society, and to the school curriculum.

535-2 Contemporary Idioms. An analysis of major compositional techniques since 1945.

540-1, 2, or 4 Applied Music. (See Music 440.)

545-3 Pedagogy of Music Theory. An orientation to the philosophy of theory with application to teaching techniques.

550-2 School Music Administration and Supervision. Study of the objectives and processes of music instruction. Administration roles in developing the means and ends of music instruction, and the techniques employed for the improvement of instruction.

556-2 to 4 (2, 2) Advanced Conducting. Individual or group study with appropriate instructor of choral, orchestral, or band literature. Practice in score reading, baton technique, and interpretation. Opportunity to rehearse and conduct ensembles when feasible. Prerequisite: completion of an undergraduate conducting course with graduate standing in music, or consent of instructor.

566-1 to 12 (1 or 2 per semester) Ensemble. Regular participation, including accompanying, in any organized performing ensemble. One credit per group; maximum of two credits for concurrent participation in two groups.

567-1 to 8 Music Theater Workshop. For experienced singers, actors, dancers, and instrumentalists. Normally offered during summer as a fulltime course for eight credits, or partial credit for the orchestral players. Prerequisite: audition.

568-1 to 16 (1 to 8 per semester) Opera Workshop. Open to all experienced singers and stage technicians. Performs one major work and two or more excerpt programs per year. Normal registration is for two credits; four credits with permission for those with major roles; eight credits for full time summer workshop.

570-3 History of Opera. The development of the music, libretti, and staging of opera from the late Renaissance to the present, with a detailed study of selected works. Prerequisite: for non-music majors: prior consent of instructor.

573-3 Medieval Music. Music of the medieval world; Gregorian chant; the Tropes; secular songs of the troubadours and trouveres; the rise of polyphony; Ars Antiqua; organum and conductus; Ars Nova; Dunstable and English descant up to about 1450; types of notation. Prerequisite: for non-music majors: prior consent of instructor.

574-3 Renaissance Music. Burgundian and Netherlands music from 1450 and its spread; Isaac and Josquin; 16th Century polyphony in France, Germany, Spain, and England; the rise of music for instruments and for solo voices. Prerequisite: for non-music majors: prior consent of instructor.

578-3 Twentieth Century Music. The heritage of 20th century music. Study and analysis of musical philosophies and techniques of post-impressionist and contemporary composers. Prerequisite: for non-music majors: prior consent of instructor.

580-2 to 4 (2, 2) Graduate Composition. Composition in the larger forms for solo and ensemble performance. Required of all master's candidates specializing in composition. Individual instruction. Prerequisite: 480-4 or prior consent of instructor.

595-2 Music Document. A written report presenting the history and style of works performed in graduate recital, Music 598, or other topic relating to the student's principal performing area or independent study project. Prerequisite: 501 and approval of topic by the music graduate committee. On recommendation of the composition faculty and with graduate committee approval, a piece of music composed by the student for performance in Music 598 may be substituted, accompanied by a written analysis.

598-4 Graduate Recital. Preparation and presentation of a full solo recital in any area of performance; or the preparation, rehearsal, and conducting of a full ensemble program or of the equivalent sections of several ensemble programs. Prerequisite: completion of at least four credits in 540 (or 556 for conductors) and the approval of the performance jury. The performance jury certifies the acceptability of the completed recital and the grade to the graduate committee.

599-2 to 6 Thesis. An intensive written study in the history, theory, teaching, or philosophy of music; or the manuscript and parts (with tape recording when feasible) of a substantial musical composition or series of compositions accompanied by an analytical or explanatory document. Prerequisite: 501 and prior approval of topic or proposal by thesis director and graduate committee in music.

Occupational Education

(SEE VOCATIONAL EDUCATION STUDIES)

Philosophy

400-3 Contemporary Mind. Analysis of thought-patterns and motivations dominating the American mind during the present decade of the 20th Century. Elective Pass/Fail.

415-3 Logic of Social Sciences. (Same as Sociology 415.) Logical and epistemological examination of the social sciences as types of knowledge. Basic problems in philosophy of science with major emphasis upon social science: relationship of theory to fact, nature of induction, nature of causal law, testability, influence of value judgments, etc. Intended for students with considerable maturity in a social science or in philosophy. Elective Pass/Fail.

420-3 Advanced Logic. Study of topics in logical theory and/or formal logic not treated in 320. Prerequisite: 320. Elective Pass/Fail.

425-3 Philosophy of Language. (Same as Speech Communication 465.) Introduction to basic problems in the philosophy of language, including alternative theories of meaning and reference and the relation between meaning and intention. Elective Pass/Fail.

426-3 Introduction to Mathematical Logic. (See Mathematics 426.)

432-4 Philosophy of Mathematics. (Same as Mathematics 432.) Philosophical problems of mathematics. Epistemological issues raised by non-Euclidean geometry. Representative writers on foundations, including nominalists, intuitionists, logicians and formalists. Ontological commitment, conventionalist theories of mathematical truth, logical paradoxes, and alternative set theories; significance of the theorems of Godel and Skolem-Lowenheim. Prerequisite: 320 or 15 hours mathematics. Elective Pass/Fail.

435-4 Scientific Method. Critical survey of influential descriptions of scientific method, with emphasis on natural sciences. Topics include statistical and inductive probability, crucial experiments, explanation and prediction, interpretation of scientific terms and sentences, role of reasoning in discovery, and value judgments in research. Elective Pass/Fail.

441-4 Philosophy of Politics. (Same as Political Science 403.) Some of the central problems of modern political life, such as sovereignty, world government, authority and consent,

the relations of economics and social studies to political theory. Prerequisite: 340 or GSC 102 or consent of instructor. Elective Pass/Fail.

443-4 Philosophy of History. Classical and contemporary reflections on the nature of history and historical knowledge as the basis for dealing with the humanities. Prerequisite: consent of instructor. Elective Pass/Fail.

446-3 Philosophical Perspectives on Women. Survey of five different views of the relation of the concept of women to the philosophical concept of human nature. Elective Pass/Fail.

460-4 Philosophy of Art. The definition of art, its relation to science, culture and morals; the various types of art defined. Familiarity with at least one of the fine arts is assumed. Elective Pass/Fail.

470-6 (3, 3) Greek Philosophy. (a) Plato; (b) Aristotle. Prerequisite: 304 or consent of instructor. Elective Pass/Fail.

471-4 Medieval Philosophy. Prerequisite: 304 or consent of instructor. Elective Pass/Fail.

472-4 The Rationalists. Study of one or more of the following: Descartes, Malebranche, Spinoza, Leibniz, Wolff. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.

473-6 (3, 3) The Empiricists. (a) Locke; (b) Hume. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.

474-9 (3, 3, 3) 19th Century Philosophers. (a) Kant; (b) Hegel; (c) Marx. Prerequisite: 306 or consent of instructor.

477-4 Latin American Philosophy. A survey of philosophic thought in Latin America from colonial times through 19th century positivism and the reactions against it, up to recent trends. Reading or original texts in English translation. Discussions and reports. Elective Pass/Fail.

478-4 Latin American Thought. Elective Pass/Fail.

482-3 Recent European Philosophy. Philosophical trends in Europe from the end of the 19th Century to the present. Phenomenology, existentialism, the new Marxism, structuralism, and other developments. Language, history, culture and politics. Elective Pass/Fail.

486-3 Early American Philosophy. From the Colonial period to the Civil War. Elective Pass/Fail.

487-3 Recent American Philosophy. Thought of Howison, Royce, Peirce, James, Dewey and others. Elective Pass/Fail.

490-2 to 8 Special Problems. Hours and credits to be arranged. Courses for qualified students who need to pursue certain topics further than regularly titled courses permit. Special topics announced from time to time. Students are invited to suggest topics. Prerequisite: consent of department.

491-1 to 3 Undergraduate Directed Readings. Supervised readings for qualified students. Open to undergraduates only. Prerequisite: consent of instructor.

496-2 to 4 Independent Studies in Classical Studies. (See Classical Studies 496.)

500-3 Metaphysics. Recent writers and current problems in metaphysics.

501-3 Philosophy of Religion. Analysis of a problem in philosophical theology or the phenomenology of religion, or of the work of a particular thinker.

503-3 Philosophical Ideas in Literature. Metaphysical and ethical world views embodied in representative classics of poetry and prose from ancient to contemporary times.

510-3 Indian Philosophy. Schools, systems, or problems in Indian thought.

511-3 Chinese Philosophy. Confucianism, Taoism, or Buddhism. Emphasis on comparison of philosophy East and West.

512-3 Philosophy of Culture. Forms and assumptions of Eastern and Western philosophies.

515-3 Theory of Nature. Presuppositions of the Western view of nature, the need for revision of causal determinism, and the reintroduction of freedom into the spatiotemporal world.

520-3 Logic. Recent advances in logic.

524-6 (3, 3) Analytic Philosophy. Analytic philosophy of men such as Austin, Ryle, Ayer, Carnap, G. E. Moore. (a) Early; (b) Recent.

530-3 Theory of Knowledge. A contemporary writer or problem in epistemology. Emphasis on problem of reliability and structure of scientific knowledge.

531-3 Whitehead. Study in depth of a selected aspect or problem in Whitehead's philosophy.

542-3 Political and Legal Philosophy. Relations of law, morality, and politics, and consideration of problems and issues in philosophy of law.

545-3 Ethics. Recent British and American ethical theory.

550-3 Theory of Value. General theory of value or treatment of one or more philosophers on contemporary problems of value.

560-3 Aesthetics. Selected topics or writings.

562-3 Philosophy of Human Communication. (See Speech Communication 562.)

570-3 American Idealism. One or more American idealists. Recent seminars have been devoted to the thought of Brand Blanshard and Peter A. Bertocci.

572-3 20th Century Philosophy. Inception and development of *The Library of Living Philosophers* from Volume I on John Dewey to the present.

575-3 to 9 (3 per topic) Contemporary Continental Philosophy. Topics in phenomenology, existentialism, and structuralism as developed from Husserl to Derrida. May be repeated as the topic varies.

577-6 (3, 3) Pragmatism. (a) Peirce and Dewey. (b) James and Mead.

581-3 Plato. Thorough study of several of the dialogues. Systems of Plato as a whole, discussions and reports on the readings.

582-3 Aristotle. Intensive reading of several texts, illustrating widely varied portions of Aristotle's thought.

587-3 Kant.

588-3 Hegel.

590-2 to 12 (2 to 4 per topic) General Graduate Seminar. Selected topics or problems in philosophy.

591-1 to 16 Readings in Philosophy. Supervised readings for qualified students. Prerequisite: consent of instructor.

595-2 Teaching Philosophy. Study of the methods appropriate to teaching introductory courses at the college level in the various areas of philosophy.

599-2 to 6 Thesis. Minimum of four hours to be counted towards a master's degree.

600-3 to 32 (3 to 16 per semester) Dissertation.

Physical Education

Courses in this department may require the purchase of supplemental materials.

400-3 Evaluation in Physical Education. Historical background of measurement in physical education; selection and evaluation of contemporary testing devices (predominantly tests of motor skill); structure and use of tests; administering the testing program; and statistical manipulation and interpretation and application of results.

402-2 Organization and Administration of Intramural and Extramural Activities. Planning intramural programs of sports. Planning and coordinating extramural activities commonly associated with physical education.

403-2 Developmental Movement Experiences Designed for the Special Child. Movement performance as applied to children of special populations. Study of movement theory and its application to developmental needs and motor-perceptual performance.

404-2 The Teaching of Sports. Principles of learning applied to selected sports; progressions, teaching methods, and related summaries of research.

407-2 Advanced Theory and Techniques in the Prevention and Rehabilitation of Athletic Injuries. The application of scientific principles to the theoretical and practical methods of preventing and treating athletic injuries.

408-2 Physical Fitness: Its Role and Application in Education. An analysis of physical fitness as it relates to the total well-being of people. Specific units on the fitness parameters, hypokinetic disease and physical inactivity, stress, current level of fitness, training programs, and the beneficial aspects of regular exercise. Major emphasis is placed upon incorporating current thinking on physical fitness into the development of teaching models.

410-3 Behavioral Foundations of Coaching. Behavioral problems of the athlete and the coach and possible solutions to such problems. Application of behavioral principles and theories as a basis for understanding the interaction between coach and student in the athletic environment.

415-1 to 6 (1 per topic) Workshop in Sports. A concentrated experience in the latest theories and techniques of selected sports activities. Emphasis is placed on individual and team drills, instructional materials and improved teaching methods. One semester hour for each workshop. A total of four hours only of such workshop experience may be credited toward the master's degree. Workshop titles are: (a) Baseball, (b) Basketball, (c) Field Hockey, (d) Football, (e) Gymnastics, (f) Soccer, (g) Softball, (h) Swimming, (i) Track and Field, (j) Volleyball.

416-3 Current Theories and Practices in the Teaching of Dance. (Same as Theater 416.) Designed to aid a critical evaluation and analysis of dance as an educational tool, from creative dance for children through dance in the University curriculum. Specific techniques, creative ideas, class organization, and general evaluation will be included. All students will be expected to design and instruct a lesson under supervision of the instructor. Notebook required. Prerequisite: GSE 113d or Physical Education for Women 115h and 240.

418-2 Administration of Aquatics. The study of comprehensive aquatic programs, their implementation and coordination.

420-3 Physiological Effects of Motor Activity. The general physiological effects of motor activity upon the structure and function of body organs; specific effect of exercise on the muscular system. Requires purchase of laboratory manual. Prerequisite: GSA 209 or equivalent.

444-2 to 6 Contemporary Dance Workshop. Dance technique and theory, composition, improvisation, and production. Advanced study of the problems of choreography and production in their presentation as theater. Public performance is required. Prerequisite: one year of technique and theory or equivalent.

493-2 to 4 Individual Research. The selection, investigation, and writing of a research topic under supervision of an instructor. (a) Dance, (b) Kinesiology, (c) Measurement, (d) Motor Development, (e) Physiology of Exercise, (f) History and Philosophy. Written report required. Prerequisite: consent of adviser and department chairman.

494-2 (1, 1) Practicum in Physical Education. Supervised practical experience at the appropriate level in selected physical education activities in conjunction with class work. Work may be in the complete administration of a tournament, field testing, individual or group work with special populations, administration of athletics or planning physical education facilities. Prerequisite: consent of adviser.

500-3 Techniques of Research. Study of research methods and critical analysis of research literature specifically applied to the areas of motor performance and exercise. Prerequisite: consent of adviser and 400 or concurrent enrollment or equivalent.

501-3 Curriculum in Physical Education. Principles and procedures for curriculum construction and revision; criteria for selecting activities and judging outcomes and the place of the physical education course of study within the total curriculum.

503-2 Seminar in Physical Education. Making a systematic analysis of problems and issues encountered in the conduct of physical education. Selection of a problem or issue that is a concern to physical education and suggestion of solutions.

505-2 to 6 (2 per topic) Topical Seminar in Physical Education. Students may concentrate on different topics each semester dependent upon both the interests of the students and the expertise of the graduate faculty. Prerequisite: consent of instructor.

506-2 Topical Seminar in the Assessment of Motor Performance. Topics of importance in the techniques of assessment and in the understanding of the structure within the motor domain will be presented, studied, and discussed. Opportunity will also be provided for the individual to pursue the study of a special interest area. Prerequisite: 400 or consent of instructor.

508-2 Administration of Athletics. Designed to present a broad view of the role of athletics in its relationship to the total educational program, and to examine current practices in athletic management which operate within a framework of recommended policies and rules which govern athletics.

510-2 Motor Development. Early patterns of motor behavior and the development of physical skills in childhood. The development of physical abilities during adolescence. Individual differences in motor proficiency and factors affecting the acquisition of motor skills. Concepts of motor development with inferences for improving instructional practices.

511-2 Analysis of Human Physical Movement. Basic human movements as performed by individuals of different ages analyzed. Understanding of movement mechanics at varying levels of skill analyzed. Additional material required. Prerequisite: 303 or equivalent.

512-2 Biomechanics of Human Motion. Methods of data collecting and analyzing the biomechanics of human motion under normal and pathological conditions are covered. Students complete a biomechanical study for a one segment motion.

513-3 Perceptual Motor Learning of Physical Skills. Principles of learning applied to motor performance. Variables that affect learning of physical skills.

515-3 Body Composition and Human Physical Performance. Physical dimensions of the human body as they influence motor performance and are modified by protracted physical exercise. Prerequisite: 420 or equivalent.

517-2 Athletic and Physical Education Facilities Design, Construction, and Maintenance. Basic principles of design, construction, and maintenance of athletic and physical education facilities based upon program characteristics and potential student enrollment. Emphasis on the development of new materials and trends toward new concepts of design and construction. Prerequisite: Physical Education for Men 357 or Physical Education for Women 357 or equivalent.

520-3 Metabolic Analysis of Human Activity. Metabolic principles pertinent to human physical performance with emphasis on sport, exercise, and occupational activity analysis. A detailed study of oxygen utilization, oxygen debt, mechanisms of oxygen transport as they relate to physiological homeostasis in localized and total body motor activity. Emphasis on the laboratory study of aerobic and anerobic performance. Prerequisite: 420 or equivalent.

530-2 Seminar in Research in Motor Performance. Special problems in research design in motor performance, review of research in depth on topics of specific interest, presentation and evaluation of research proposals. Required for Ph.D. candidates. Prerequisite: 500 or equivalent and consent of instructor.

590-1 to 4 Readings in Physical Education. Supervised readings in selected subjects. Prerequisite: consent of adviser and department chairman.

592-3 Research Projects in Physical Education. Planning, conducting, and reporting original research studies. Four copies of paper required. Graded S/U only. Prerequisite: 500 or equivalent, consent of adviser.

599-3 to 6 Thesis. Prerequisite: 500 or equivalent.

600-1 to 32 (1 to 16 per semester) Dissertation. Minimum of 24 hours to be earned for the Doctor of Philosophy degree.

Physics and Astronomy

401T-1 Mechanics. Same as first half of Physics 401.

410-3 Mechanics II. Lagrange's equations, mechanics of continuous media, inertia and stress tensors, rotation of rigid bodies, small vibrations, and advanced principles. Prerequisite: 310 or consent of instructor. Elective Pass/Fail.

415T-2 Modern Physics. Same as 415B and second half of 430, offered during the second half of the fall semester (415A-3 quarter hours plus 415B-two semester hours equals 430-four semester hours).

420-3 Electricity and Magnetism II. Induced electromotive force, quasisteady currents and fields, Maxwell's equations, electromagnetic waves and radiation, with applications. Prerequisite: 320 or consent of instructor. Elective Pass/Fail.

424-2 Electronics. An introduction to electronic circuit design and applications for advanced undergraduate students of science. Basic vacuum tube and transistor circuits employing amplification, feedback, and rectification are studied, principally for small signals including noise and linear operation. Applications to power supplies, amplifiers, oscillators, and detectors used in research are emphasized. Prerequisite: 324 or consent of instructor. Elective Pass/Fail.

425-2 Physics of Modern Electronic Devices. Physical principles of the semiconducting, ultrasonic, and electro-optic elements used in modern electronics. Prerequisite: 324 or consent of instructor. Elective Pass/Fail.

428-2 Modern Optics. Advanced course in modern optics covering such topics as interference and interferometers, coherence, diffraction, holography, optics of solids, lasers, and non-linear optics. Prerequisite: 328 and 420. Elective Pass/Fail.

430-4 Modern Physics. Lectures on the experimental basis of modern physics. Introduction to quantum mechanics with emphasis on applications in atomic physics. Prerequisite: 310 and 320. Elective Pass/Fail.

431-2 Molecular Physics. Molecular spectra and structure. Prerequisite: 430. Elective Pass/Fail.

432-2 Nuclear Physics. Basic nuclear properties and structure; radioactivity, nuclear excitation, reactions; nuclear forces, and the two-nucleon problem; production and study of high energy particles and radiations. Prerequisite: 430. Elective Pass/Fail.

445-3 Statistical Mechanics. An introductory course in the principles and applications of classical and quantum statistical mechanics. Elementary kinetic theory of matter. Prerequisite: 340 and 430 or concurrent enrollment. Elective Pass/Fail.

450-1 Modern Physics Laboratory. Introduces the student to experimental research and encourages him to develop and carry out his own experiments. Prerequisite: 205c, either of 350 or 351, or consent of instructor. Elective Pass/Fail.

460-8 (4, 4) Physical and Applied Acoustics. Coordinated lecture and laboratory study in acoustical phenomena. Topics include vibration analysis, wave mechanics, two and three dimensional propagation and applications in physics, materials science, engineering, architecture, music, and environmental science. Emphasis on laboratory and field technique with modern computer analysis. Prerequisite: 301 or Mathematics 305 or concurrent enrollment. Elective Pass/Fail.

470-1 to 3 Special Projects. Each student chooses or is assigned to a definite investigative project or topic. Prerequisite: 310, 320. Elective Pass/Fail.

480-3 Topics in Classical Physics. Assists experienced teachers to improve their understanding of classical physics and the strategy of presenting it. Emphasis on demonstration of phenomena as basic strategy in the introduction to new material. Attention given to the design of demonstration apparatus. Related laboratory experience is an integral part of the course. Prerequisite: consent of department. Elective Pass/Fail.

481-3 Topics in Modern Physics. Assists experienced teachers to extend their understanding of modern physics. Lectures and demonstrations aim at improvement of the means of presenting the ideas of modern physics. Related laboratory experience is an integral part of this course. Prerequisite: consent of department. Elective Pass/Fail.

482-2 (1, 1) In-Service Institute for Teachers of Physics. A series of lectures, demonstrations, discussions and films to assist teachers of high school physics in meeting their classroom problems and responsibilities. Prerequisite: consent of department. Elective Pass/Fail.

500-6 (3, 3) Mathematical Methods in Physics. Vector spaces and operators in physics. Hilbert spaces and complete orthonormal sets of functions. Elements and applications of the theory of analytic functions. Methods for the solution of partial differential equations of physics. Prerequisite: Mathematics 407 or equivalent, consent of instructor.

510-4 Classical Mechanics. Generalized coordinates and forces. Lagrangian, Hamiltonian, and variational formulations of mechanics. Central forces, oscillations; normal modes of molecular systems. Prerequisite: 410.

511-3 Mechanics of Deformable Bodies and Fluids. Theory of stress, strain, and deformation in solids and the equations of flow in liquids and gases. Prerequisite: 510.

520-7 (4, 3) Electromagnetic Theory. Determination of static, electrostatic, and magnetostatic fields. Microscopic and macroscopic theory of insulators and conductors. Maxwell's equations; radiation, propagation and scattering of electromagnetic waves. Electrodynamics and special theory of relativity. Selected topics. Prerequisite: 420.

530-6 (3, 3) Quantum Mechanics. Basic principles; the harmonic oscillator and the hydrogen atom; scattering; approximation and perturbation methods; spin, statistics. Prerequisite: Mathematics 406 or consent of instructor; 500 desirable.

531-6 (3, 3) Advanced Quantum Mechanics. Quantum theory of radiation; applications of field theory to elementary particles; covariant quantum electrodynamics; renormalization; special topics. Content varies somewhat with instructor. Prerequisite: 530 and consent.

535-6 (3, 3) Atomic and Molecular Physics. Recent experimental methods in atomic and molecular spectroscopy with applications. Detailed quantum mechanical and group theoretical treatment of atomic and molecular systems. Reactions between atomic systems. Prerequisite: consent of instructor.

545-6 (3, 3) Statistical Mechanics. Principles of classical and quantum equilibrium statistics; fluctuation phenomena; special topics in equilibrium and non-equilibrium phenomena. Prerequisite: 445.

560-6 (3, 3) Nuclear Physics. Fundamental properties and systematics of nuclei, scattering theory, nuclear two-body problem, nuclear models, nuclear many-body problem, electromagnetic properties of nuclei, radioactivity, nuclear reactions. Prerequisite: 530 and consent of instructor.

565-6 (3, 3) Solid State Physics. Fundamental concepts in solid state physics. Lattice vibrations, band theory of solids, the Fermi surface, dynamics of electrons. Transport, cohesive, optical, magnetic and other properties of solids. Prerequisite: consent of instructor.

570-1 to 4 Special Projects in Physics. Each student chooses or is assigned a definite investigative topic requiring resourcefulness and initiative. Prerequisite: consent of instructor.

571-6 (3, 3) X-Ray Diffraction and the Solid State. (See Engineering Mechanics and Materials 504.)

575-2 to 4 Selected Topics in Physics. Topics of special interest. Prerequisite: consent of instructor.

581-1 to 3 Graduate Seminar. Lectures on special topics to be given when a demand arises. Prerequisite: consent of instructor.

599-1 to 6 Thesis.

Physiology

401-10 (5, 5) Advanced Human Anatomy. Dissection of the human body. Primarily for students with a major in physiology or other biological sciences. Two hours lecture, six hours laboratory per week. Prerequisite: due to limited facilities, permission of the instructor is required.

402-5 (3, 2) Concepts of Anatomy. A detailed survey of human anatomy for pre-professional students with an interest in the biomedical disciplines, including radiographic, cross-sectional, and histological correlates. Three lectures per week fall semester, two lectures per week spring semester. Should be taken in a, b sequence. Not open to students who have had 401. Prerequisite: senior standing or consent of instructor.

410-10 (5, 5) Mammalian Physiology. Physical and chemical organization and function in mammals, with emphasis on the human. Physiology of blood and circulation, respiration, digestion, metabolism, excretion, endocrines, sensory organs, nervous system, muscle. Primary course for all students majoring in physiology or related sciences. Three lectures and two two-hour laboratory sessions per week. May be taken in any sequence. Prerequisite: college level chemistry and physics and at least junior standing.

411-4 (2, 2) Experimental Animal Surgery. (a) Covers animal care and preparation, anesthesia, etc; one lecture and one two-hour laboratory per week. (b) Provides training and practice in surgical procedures. Two two-hour laboratories per week. Must be taken in a, b sequence.

414-3 Anatomy and Physiology of Speech and Hearing Mechanisms. (Same as Speech Pathology and Audiology 414.) Structure and function of the vocal apparatus and hearing. Primarily for students in speech pathology and audiology. Two hours lecture and one two-hour laboratory per week. Prerequisite: consent of instructor required for graduate students.

420-6 (3, 3) Principles of Pharmacology. Action of drugs and other chemical substances on the living organism; pharmacodynamics, chemotherapy, toxicology, and therapeutics.

Pharmacologic action of analgesics, emetics and antimetics; pharmacology of the nervous system; pharmacology of the muscles; antihistaminics; drugs that affect the eye; drugs that combat infectious diseases. Two lectures and one two-hour laboratory per week. May be taken in any sequence. Prerequisite: organic chemistry and basic courses in biology, or consent of instructor.

430-4 (2, 2) Cellular Physiology. The nature and mechanisms of function of the living cell. Chemical and physical analysis of function at the cellular level. Two lectures per week. Prerequisite: organic chemistry.

433-4 Comparative Physiology. Variations of physiological processes in animal phyla, and comparison of these with human physiology. Three lectures and one discussion period per week. Prerequisite: one year of biological science.

440-4 Biophysics. Applications of classical and modern physics in physiological studies, with emphasis on quantitative physical studies of physiological functions, effects of physical environmental factors, and use of physical techniques for physiological studies. Four lectures per week. Prerequisite: one year of college physics, one year of college biology.

460-2 Electron Microscopy. Lectures, demonstrations, and experience on specimen-preparation and use of the electron microscope. One lecture and one two-hour laboratory per week. Prerequisite: due to limited facilities, permission of the instructor is required.

461-3 Biomedical Electronics. Practical experience with modern electronic circuits and devices used for biomedical purposes, with circuit construction and troubleshooting practice. Two lectures and one two-hour laboratory per week. Prerequisite: consent of instructor.

491-3 to 8 Independent Research for Honors. Supervised readings and/or laboratory research in physiology. Undergraduate honors students only. By special arrangement with the instructor with whom the student wishes to work.

492-1 to 3 Special Problems in Physiology. By special arrangement with the instructor with whom the student wishes to work. Open to undergraduates only.

500-1 to 6 (1 per semester) Advanced Seminar in Physiology. Presentation of research and current literature in physiology. Required of all graduate students in physiology.

520-3 Advanced Endocrinology. Analytical techniques and studies in the field of endocrinology; current knowledge of the endocrine glands and hormones. Two lectures and one two-hour laboratory per week. Prerequisite: advanced standing in chemistry (including organic chemistry) and biology.

530-3 Advanced Cellular Physiology. An advanced discussion of the following topics as they relate to the cell; release of energy, contractility, regulation and control of metabolism, electrical excitability, membrane transportation, water, and organelles. Prerequisite: 430, Chemistry and Biochemistry 450 or their equivalents.

531-2 Advanced Cellular Physiology Laboratory. One one-hour lecture and one three-hour laboratory per week, designed to be taken concurrently with 530. Basic experimental procedures used in studies in cellular physiology.

533-4 Advanced Comparative Physiology. Advanced concepts and techniques used in current studies in comparative physiology. Three lectures and one discussion period per week.

540-3 Advanced Biophysics. Current concepts and techniques in biophysics, with emphasis on biophysical modeling and theoretical biophysics. Two lectures and one two-hour laboratory per week. Prerequisite: 440 or equivalent.

560-2 Physiological Techniques. An overview of instruments and techniques used in physiological research. One lecture and one two-hour laboratory per week.

570-3 to 48 Advanced Physiological Topics. Studies of current research and literature in various topic areas of physiology. One or more of the following list of topic sections will be offered each semester, so that each section will be available once every two or three years. (a) Biological structure, (b) Cardiovascular physiology, (c) Respiratory physiology, (d) Nerve-muscle physiology, (e) Metabolism physiology, (f) Gastrointestinal physiology, (g) Neurophysiology, (h) Radiation biology physiology, (i) Environmental physiology, (j) Biomathematics, (k) Biomedical computing, (l) Endocrinology, (m) Animal care, (n) Biophysics, (o) Pharmacology, (p) Special topics, (q) Reproductive endocrinology, (r) Renal physiology.

590-1 to 4 Readings or Research in Current Physiological Topics. By special arrangement with the instructor with whom the student wishes to work.

599-1 to 6 Thesis Research. Research for thesis for master's degree.

600-1 to 32 Dissertation Research. Research for dissertation for Ph.D. degree.

Plant and Soil Science

Field trips are required for certain courses. The School of Agriculture offers courses in plant and soil science as part of a residence-center program at Western Illinois University.

- 400-2 Trends in Agronomy.** A discussion session format will be employed as a means of acquainting students with recent literature and allowing them to remain current with latest developments in their area of specialty. Prerequisite: senior standing.
- 405-3 Plant Breeding.** Principles of plant breeding emphasized together with their application to the practical breeding of agronomic, horticultural, and forest plants. Field trip costs approximately \$5. Prerequisite: 305 or equivalent. Elective Pass/Fail.
- 408-3 World Crop Production Problems.** Ecological and physiological factors influencing production in various areas of the world. Natural limitations on world crop production. Non-agricultural factors influence world crop output. Prerequisite: 200. Elective Pass/Fail.
- 409-3 Crop Physiology and Ecology.** The effects and significance of physiological and ecological parameters on crop yields. Prerequisite: Botany 320 or consent of instructor.
- 419-3 Forage Crop Management.** Forage crop production and utilization; forage crop characteristics, breeding, and ecology; grasslands as related to animal production, soil conservation, crop rotation, and land use. Field trip costs approximately \$5.00. Prerequisite: Botany 200 or one course in biology or equivalent.
- 420-4 Crop Pest Control.** Study of field pests of forest, orchard, field, and garden crops; pest control principles and methods; control strategy; and consequences of pest control operations. Prerequisite: introductory biology or crop science course and/or consent of department.
- 422-3 Turfgrass Science.** Basic concepts of physiology, growth, and nutrition of turfgrasses and their culture. Application of turfgrass science to management of special turf areas such as golf courses, athletic fields, and sod farms; and to the turfgrass industry. Field trips cost approximately \$15. Prerequisite: 240 and 322 or equivalent or consent of instructor.
- 423-3 Greenhouse Management.** Principles of greenhouse management controlling environmental factors influencing plant growth; greenhouses and related structures; and greenhouse heating and cooling systems. Field trips costing approximately \$5. Prerequisite: 220 or consent of instructor.
- 424-3 Floriculture.** Production, timing, and marketing of the major floricultural crops grown in the commercial greenhouse. Each student will have an assigned project. Field trip costing approximately \$25. Prerequisite: 423 or consent of instructor.
- 428-6 (3, 3) Advanced Landscape Design.** Theory and principles of residential landscape design. Practice in drawing residential landscape plans. (a) Emphasis on arrangement of unit areas. (b) Emphasis on details of design and selection of plants. Prerequisite: 328-4 or consent of instructor.
- 430-4 Plant Propagation.** Fundamental principles of asexual and sexual propagation of horticultural plants. Actual work with seeds cuttings, grafts, and other methods of propagation. Field trip costing approximately \$5. Prerequisite: 220.
- 432-4 Nursery Management.** Principles and practices involved in the propagation, production, and marketing of ornamental landscape plant materials. Emphasis on plant production with field trips to various production areas costing approximately \$40. Prerequisite: 220 and 327a or consent of instructor.
- 434-3 Woody Plant Maintenance.** Care and management of ornamental shrubs and trees commonly used in the landscape. Topics to include trimming, pruning, fertilization, transplanting and diagnosis of woody plant problems. Prerequisite: 327 or Forestry 201 and 202 or consent of instructor.
- 436-4 Fruit Production.** Deciduous tree and small fruit growing, physiology, management practices, marketing. Prerequisite: 220 or consent of instructor.
- 437-4 Vegetable Production.** Culture, harvesting, and marketing of vegetables; with morphological and physiological factors as they influence the crops. Field trips costing approximately \$5. Prerequisite: 220 or consent of department.
- 441-3 Soil Morphology and Classification.** Development, characteristics, and identification of soils; study of profiles; and interpretation and utilization of soil survey information in land use planning. Field trip costing approximately \$5. Prerequisite: 240 or consent of instructor.
- 442-3 Soil Physics.** A study of the physical properties of soils with special emphasis on soil and water relationships, soil productivity, and methods of physical analysis. Prerequisite: 240.
- 443-3 Soil Management.** The soil as a substrate for plant growth. Properties of the soil important in supplying the necessary mineral nutrients, water and oxygen and for providing an environmental conducive to plant root system elaboration. Soil management techniques that are important in optimizing plant growth. Prerequisite: 240. Elective Pass/Fail.
- 447-3 Fertilizers and Soil Fertility.** Recent trends in fertilizer use and the implications of soil fertility build up to sufficiency and/or toxicity levels; the behavior of fertilizer material in soils and factors important in ultimate plant uptake of the nutrients; the plant-essential elements in soils and ways of assessing their needs and additions; tailoring fertilizer for different uses and management systems; implication of excessive fertilization in our environment. Prerequisite: 240; concurrent enrollment in 448 suggested. Elective Pass/Fail.
- 448-2 Soil Fertility Evaluation.** A laboratory course designed to acquaint one with practical soil testing and plant analysis methods useful in evaluating soil fertility and plant needs.

One hour lecture, two hours laboratory. Prerequisite: 240; 447 or concurrent enrollment; or consent of instructor.

454-3 Microbial Processes in Soils. A study of the numbers, characteristics, and biochemical activities of soil micro-organisms, with particular consideration of their role in the transformations of organic matter, nitrogen, and minerals as related to soil fertility and management. The role of soil organic matter in interacting with fertilizers, pesticides, and environmental waste products is included. Prerequisite: 240 or one course in microbiology. Elective Pass/Fail.

460-3 Radioisotopes, Principles and Practices. Lectures on the principles of radioisotope technology as applied to agricultural and biological sciences. Prerequisite: general chemistry and biochemistry or equivalent.

468-3 Weeds — Their Control. Losses due to weeds, weed identification and distribution, methods of weed dissemination and reproduction, mechanical, biological, and chemical control of weeds. State and Federal legislation pertaining to weed control herbicides. Herbicide commercialization. Field trips costing approximately \$5. Prerequisite: an introductory biology course. Elective Pass/Fail.

518-3 Principles of Herbicide Action. Chemistry and mode of action of herbicides. Nature of herbicidal action. Illustrates the various types of chemical weed control procedures in current use. The physiology of herbicidal action examined using the different mechanisms established for various chemical groups of herbicides. Prerequisite: 468, Botany 320.

520-3 Growth and Development of Plants. Physiological control of developmental processes. Emphasis on exogenous growth-regulating compounds and their behavior in plants. Prerequisite: Botany 320 or consent of instructor.

524-2 Advanced Plant Genetics. (See Botany 524.) Prerequisite: Biology 305 or equivalent.

547-2 Soil-Plant Nutrient Relationships. A study of advanced topics relating to fertilizer and nutrient use efficiency by plants, including research methods for fertilizer use evaluation and plant response. Mechanisms in the soil for nutrient storage, release, fixation, and loss will be dealt with as they relate to efficient use by plants. Prerequisite: 447 or equivalent.

560-3 Field Plot Technique. Design of field plot and greenhouse experiments including appropriate statistical analyses for each of the designs. Data interpretation and preparation of manuscript for publication in popular or scientific journals. Prerequisite: consent of instructor.

581-1 to 4 (1, 1, 1, 1) Seminar. Group discussion of and individual papers on subjects and problems relating to soils, field and horticultural crops, and other phases of the fields of plant and soil science.

588-1 to 8 International Graduate Studies. Residential graduate study programs abroad. Approval of department required both for the nature of program and number of hours of credit. Prerequisite: consent of department chairman. Graded S/U only.

590-1 to 4 Readings. Contemporary books and periodicals on selected subjects within the fields of plant and soil science. Prerequisite: consent of department.

592-1 to 3 Special Problems. Directed study of specialized areas of crop production, horticulture, or soils depending on the program of the student. Discussion, seminars, readings, and instruction in research techniques. Prerequisite: consent of department.

593-1 to 4 Individual Research. Directed research on approved projects investigating selected fields of plant and soil science. Prerequisite: consent of department.

599-1 to 6 Thesis. At least three hours of thesis credit is required for the master's degree under the thesis option. Prerequisite: consent of department.

Political Science

The Department of Political Science offers courses toward the Master of Arts degree and Ph.D. degree in political science and the Master of Public Affairs.

403-4 Philosophy of Politics. (See Philosophy 441) Elective Pass/Fail.

404-6 (3, 3) History of Political Theory. (a) Ancient and Medieval theory, Plato to Thomas Aquinas; (b) Renaissance and Rationalist theory. Machiavelli to Edmund Burke. Prerequisite: 303 or consent of instructor. Elective Pass/Fail.

405-3 Democratic Theory. An examination of various species and aspects of democratic thought, including the liberal tradition and its impact upon the United States. Prerequisite: GSB 212 or consent of instructor. Elective Pass/Fail.

406-3 Socialist Thought. An examination of socialist thought regarding social structure, economic institutions, and political power. Prerequisite: senior or graduate standing or consent of instructor. Elective Pass/Fail.

413-3 Modern Federalism. The structure and function of federal systems of government with emphasis on recent revisions in American federalism and comparison of the American federal structure with federalism in other nations. Elective Pass/Fail.

- 414-3 Political Systems of the American States.** The state level of government viewed with emphasis upon recent developments and current research. Prerequisite: 213. Elective Pass/Fail.
- 415-3 Urban Politics.** An examination of the environment, institutions, processes, and functions of government in an urban society with particular emphasis on current problems of social control and the provision of services in the cities of the U.S. Prerequisite: 213. Elective Pass/Fail.
- 416-3 Senior Seminar in Political Behavior.** Seminar for advanced undergraduate students to examine in depth such topics as political participation and influence (mass and elite), political conflict, political socialization and recruitment, political leadership. Graduate students not admitted. Prerequisite: 200 recommended. Elective Pass/Fail.
- 417-3 Political Psychology.** An examination of various psychological theories as they relate to the development and change of political attitudes, leadership behavior, and mass political participation. Prerequisite: 200 recommended. Elective Pass/Fail.
- 418-3 Political Communications.** (See Speech Communication 451.) Elective Pass/Fail.
- 419-4 Political Sociology.** (See Sociology 475.)
- 426-3 Politics of Social Welfare.** The Social Security Act and other legislation of major significance for the welfare and maintenance of the family, the handicapped, children, and other special groups. Their relationship to the legal structure of federal, state, county, township, and municipal welfare facilities and institutions with indications of economic and social consequences. Elective Pass/Fail.
- 427-3 The Politics of National Defense.** A comparative study of the political effects of arms developments and arms control, the use and influence of military force in modern society and the factors leading to national aggression and non-aggression. Elective Pass/Fail.
- 428-3 Government and Labor.** (See Economics 436.) Elective Pass/Fail.
- 429-3 Race, Ethnicity and Politics.** (Same as Black American Studies 445.) Analysis of race and ethnicity as significant variables in political life. Topics receiving attention include various forms of political participation, leadership behaviors, organizational development, political strategies, and the effect of law in producing social change. Comparative cross-national emphases will vary with the instructor. Prerequisite: GSB 212. Elective Pass/Fail.
- 433-8 (4, 4) Constitutional Law.** (a) This, the initial course in a two-course sequence, will be concerned with the basic structure and power relationships in the American constitutional system and, in addition, will cover the 19th and early 20th century bulwarks of constitutional *laissez faire*, the contract clause and "substantive" due process. In brief, the course will cover judicial review, judicial restraint, separation of powers, the federal system, national powers, state powers, constitutional amendments, and restraints on economic powers, the contract clause and "substantive" due process. Prerequisite: GSB 212. Political Science 330 is recommended. Elective Pass/Fail. (b) This is the second course in the constitutional law sequence. The course will be wholly concerned with those provisions of the Constitution which protect individual rights and liberties against governmental encroachment. In brief, the course will cover constitutional provisions and case precedents relating to citizenship, freedom of speech, assembly, and association, freedom of religion, rights to persons accused of crime, protection against racial, ethnic, and other forms of discrimination, legislative apportionment and the electoral process. Prerequisite: GSB 212. Political Science 433a is highly recommended. Students who plan to take this course should not take Political Science 332. Elective Pass/Fail.
- 435-3 Judicial Process.** An examination of the process by which judges in both trial and appellate courts at federal state levels are selected and of the ways in which they make decisions. Attention to the structure of the courts. Study of the communication and impact of judicial decisions. Prerequisite: either 330, 332, 433, or consent of instructor. Elective Pass/Fail.
- 436-3 Administrative Law.** The procedural law of public agencies, particularly the regulatory commissions but also executive branch agencies exercising regulatory functions. The exercise of discretion and its control through internal mechanisms and judicial review. Prerequisite: an ability to read court cases; 340 also preferred. Elective Pass/Fail.
- 437-3 Jurisprudence (Theories of Law).** Major schools in legal thinking. Positive law and natural law. Idea of justice and concept of natural rights. Elective Pass/Fail.
- 441-3 Organization Theory.** Analysis of various approaches to organizational theory and public administration with emphasis on recent American literature in this field. Prerequisite: 340 or consent of instructor. Elective Pass/Fail.
- 442-3 Public Personnel Administration.** An analysis of some of the central problems encountered by the government executive in recruiting, maintaining, and developing personnel, such as political neutrality, leadership and motivation, career development, security regulations, and the role of personnel in policy planning and execution. Prerequisite: 340. Elective Pass/Fail.
- 443-3 Public Financial Administration.** An examination of the administrative problems connected with local and state revenues and expenditures in the United States. Prerequisite: 213. Elective Pass/Fail.
- 444-3 Policy Analysis.** An examination of basic concepts in the policy sciences, approaches

to policy analysis, applications to selected areas of policy and instruments of policy development. Elective Pass/Fail.

447-9 (3, 2, 2 to 4) Urban Planning. (See Geography 470a,b,c.) Elective Pass/Fail.

454-3 Comparative Urban Politics. Comparative analysis of urban political systems in the United States and other nations. Attention to the social environment, political structures, political processes, and public policies of selected urban areas. Prerequisite: none. 213 recommended. Elective Pass/Fail.

455-3 Comparative Public Administration. Administrative attitudes, behaviors, and institutions are compared on a topical basis in governments of Britain, Europe, the United States, Japan, and selected socialist, developing, and ancient states. Elective Pass/Fail.

457-3 Great Britain and the Commonwealth. The nature of the Commonwealth association and the politics of Great Britain and the "Old Commonwealth" countries: Australia, Canada, New Zealand. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

458-3 Governments and Politics of Europe. A comparative study of the political systems of the major countries of Western and Central Europe. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

459-3 Government and Politics of Soviet Russia. Dynamics of Soviet government and economy. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

460-3 Governments and Politics of South Asia. Politics in India, Pakistan, Sri Lanka, Nepal. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

461-3 Governments and Politics of Southeast Asia. Politics and governments of Burma, Thailand, Malaysia, North Vietnam, South Vietnam, Cambodia, Laos, Singapore, Indonesia, and the Philippines. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

462-3 Governments and Politics of Vietnam. Development of nationalist and communist political groupings since the period of French domination. Role of the religious sects and the private armies. Analysis of the legal and political system of Vietnam. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

463-3 Government and Politics of China. Internal political, economic, and social development of China. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

464-3 Governments and Politics in the Middle East. The Arab states of the Middle East and Israel. Socialization and integration patterns, the traditional and revolutionary regimes, and regional cooperation and conflict. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

465-3 Government and Politics of Sub-Saharan Africa. (Same as Black American Studies 465.) Government and politics of French, English, and Portuguese-speaking areas of sub-Saharan Africa, with particular reference to the decolonization process and the relations of African states with each other and with non-African countries. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.

466-4 Governments and Politics of Latin America. An in-depth analysis of specific problem areas in Latin American political processes as well as comparative study of selected Latin American nation-states. Prerequisite: none. 366 recommended. Elective Pass/Fail.

467-3 Advanced Comparative Politics. Analysis of the comparative approach to the study of politics and the principal methods employed in this approach. Methodological and conceptual issues are presented in conjunction with basic political structures and processes. Prerequisite: GSB 250 or consent of instructor. Elective Pass/Fail.

471-3 Theories of International Relations. Systematic analysis of a variety of approaches which seek to explain the actions of nations. The realist and utopian traditions, ecological factors, decision-making processes, theories of conflict and integration, equilibrium and systems analysis will be covered among others. Prerequisite: GSB 270 or graduate standing. Elective Pass/Fail.

475-6 (3, 3) International Law. (a) Rules and practices governing the nations in their relations in peace and war. Prerequisite: none. GSB 270 recommended. (b) Investigation of special problems in international law. Prerequisite: 475a. Elective Pass/Fail.

477-3 The Making of American Foreign Policy. An advanced course dealing with the formulation and administration of American foreign policy. Prerequisite: none. GSB 378 recommended. Elective Pass/Fail.

480-3 International Politics. Definition and analysis of the concepts of spheres of hegemony, alliances, regionalism, integration, interdependence, and an evaluation of their application to contemporary international politics. The course will stress the need for the continuing evaluation of the vague role of national power and influence within the framework of a changing world environment. Elective Pass/Fail.

485-3 International Relations of the Far East. The political and strategic problems and the interplay of the foreign policies of the major powers in this area. Prerequisite: none. GSB 270 or History 380 recommended. Elective Pass/Fail.

487-3 International Relations of the Middle East. Role of Middle Eastern countries in world affairs, international implications of Middle East conflicts, and strategic involvement of the U.S., Soviet Union, and other countries in the area. Prerequisite: none. GSB 270 recommended. Elective Pass/Fail.

488-3 International Relations of the Western Hemisphere. Emphasis on the interna-

tional behavior of Latin American nation-states and/or regions especially related to policy trends and historical and contemporary objectives of the U.S. Prerequisite: none. GSB 270 recommended. Elective Pass/Fail.

494-1 to 6 Honors Research. Directed research for senior government honors students. Not for graduate students. Prerequisite: consent of instructor and chairman. Students must have at least a *B* average in political science.

500-2 Research Methods—Introduction. Selected topics concerning the philosophy of knowledge, empirical and normative analysis, and a survey of methods of data acquisition in political science. Primarily for master's degree students.

501-3 to 9 (3 per topic) Research Methods. (a) Experimental and quasi-experimental research design. The role of experimental and quasi-experimental research design in political science. Specific topics discussed include the logic of experimental control, principles of research design, threats to internal and external validity, and ethical considerations in experimenting with human beings. Prerequisite: Mathematics 516a or b or the equivalent. (b) Simulation. Analysis, design, construction, and evaluation of human, human-computer, and computer games and simulations for teaching, training, and research in political science. Prerequisite: Mathematics 516a or the equivalent. (c) Survey research and sampling. Basic concepts of sampling, sampling frames; types of sample design; survey designs, questionnaire construction, interviewing, coding, introductory survey analysis techniques, and ethical considerations in political science. Prerequisite: Mathematics 516a or the equivalent. (d) Causal modeling. Statistical techniques for the non-experimental investigation of causal systems. Logic of causal analysis, systems of simultaneous linear equations, causal modeling, path analysis, and structural equation models. Prerequisite: Mathematics 516a and b or the equivalent. (e) Attitude measurement and scaling. Magnitude techniques; proximity techniques; interlocking techniques; unfolding techniques; rating scale techniques; indirect evaluation techniques, and statement endorsement techniques. Prerequisite: Mathematics 516a and b or equivalent. (f) Theory building. Techniques of theory-building and typology construction. Probability theory; game theory; systems of differential equations; difference equation models; time series models; computer simulation models, and causal models. Criteria for evaluating internal and external validity for the best theory. Prerequisite: Mathematics 516a and b or the equivalent.

502-3 to 6 Topical Seminar in Research Methods. Advanced seminar in empirical political science. Topics explored in depth: simulation, graph theory, game theory, applied non-parametric statistics, multivariate analysis, sampling, attitude measurement (scaling) and other quantitative analytic techniques utilized by social scientists. Topics will vary with instructor. Prerequisite: 501A and B or consent of instructor.

503-3 Data Preparation and Management. Covers JCL, locking, file creation, data file, dictionarying, cleaning and management of data files, data transformation, and index-scale construction procedures. A research tool course not to be counted toward graduate degree requirements. Prerequisite: Computer Science 202 or permission of the instructor.

505-3 to 6 (3, 3) Topical Seminar in Normative Theory. Topic will vary with instructor. Student should see Director of Graduate Studies for advanced syllabus.

508-3 to 6 (3, 3) Topical Seminar in Empirical Theory. Systems, structural-functional, conflict, decision-making, integration, organization, exchange, communications, democratic, totalitarian, change and revolution theories will be analyzed to determine their domain and predictive and/or explanatory capacities. Generally, half of these theories will be offered every other year. Prerequisite: 501a,b or consent of instructor.

510-3 Proseminar in American Politics. Designed to survey the major literature in the field of American government at the graduate level. The course will synthesize and integrate the literature and give an overview of topics that will be covered in greater depth in each subject-matter research seminar. Highly recommended for new teaching assistants.

511-3 to 6 (3, 3) Topical Seminar in American Politics. Topic will vary with instructor. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: basic course, related training, or consent of instructor.

514-3 Seminar in American State Politics. Student should see Director of Graduate Studies of advance syllabus. Prerequisite: 414 or consent of instructor.

515-3 Seminar in Urban Politics. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: 415 or consent of instructor.

516-3 to 6 (3, 3) Seminar in Political Behavior. Topic will vary with instructor. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: basic courses, related training, or consent of instructor.

518-3 Seminar in Political Parties. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: basic courses, related training, or consent of instructor.

521-3 Seminar in the Legislative Process. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: basic courses, related training, or consent of instructor.

538-3 Seminar in the Judicial Process. An examination of the literature on such topics as judicial selection, the impact of court decisions, court procedure, and the factors affecting the decision-making behavior of judges. Prerequisite: 433 or equivalent or consent of instructor.

540-2 Advanced Public Administration. Review of current state of public administration as a discipline and profession. Recent literature is examined in the light of administrative realities. Required of all M.P.A. candidates.

542-3 Planning and Budgeting Systems. Critical examination of developing approaches to public planning and resource allocation and techniques for program analysis and evaluation. Emphasis on practical application of such methods to the public sector.

544-3 Advanced Policy Analysis. Advanced exploration of concepts in the policy sciences with primary emphasis on evaluation of on going governmental programs. Course will involve participation in some form of applied project or exercise.

(3, 3) Topical Seminar in Public Administration. (a) Devoted to selected analytical techniques as applied in public administration. (b) In-depth study of selected problems of public administration. Prerequisite: 441 or consent of instructor.

568-3 Seminar in Comparative Analysis. Development and evaluation of appropriate approaches theories, research designs, and data gathering and analysis techniques for studying a variety of macro and micro level, cross-cultural and cross-level comparative research problems.

569-3 to 6 (3, 3) Topical Seminar in Comparative Politics. Topic will vary with instructor. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: basic courses, related training or consent of instructor.

573-3 Seminar in International Organization. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: 473 or consent of instructor.

575-3 Seminar in International Law. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: r75a or consent of instructor.

577-3 to 6 (3, e) Topical Seminar in Foreign Policy. Topic will vary with instructor. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: basic courses, related training, or consent of instructor.

580-3 to 6 (3, 3) Topical Seminar in International Relations. Topic will vary with instructor. Student should see Director of Graduate Studies for advance syllabus. Prerequisite: basic courses, related training or consent of instructor.

590-1 to 6 Readings. Supervised readings in selected subjects. Prerequisite: consent of instructor.

591-1 to 6 Individual Research. Selection, investigation, and writing of a research paper under the personal supervision of a member of the department graduate staff. Prerequisite: consent of instructor.

593-2 Seminar on Teaching Political Science. Designed to introduce the students to a variety of instructional philosophies, methods, source materials, audio-visual aids, and evaluative techniques appropriate for the teaching of political science at the college level. Open to all graduate students and required of each graduate student appointee and special doctoral assistant at the earliest offering of the course after the student is awarded financial assistance. Graded S/U only.

595-1 to 6 Internship in Public Affairs. Fieldwork in the office of a governmental agency; city, county, state, national, or international. Under certain circumstances it might be in the office of a political party organization or in that of some organized pressure group. The type of internship and the place and organization in which it is taken must be mutually satisfactory to the student and the department. A paper in which the student correlates his academic knowledge with his practical experience is required. Prerequisite: consent of department.

599-1 to 6 Thesis. Maximum of six hours to be counted toward a degree. Prerequisite: consent of instructor.

600-1 to 36 (1 to 16 per semester) Dissertation. Minimum of 24 hours to be earned for the Doctor of Philosophy degree.

Psychology

404-3 Theories of Perception. An examination of the different theories concerned with an organism's sensory contact with his environment. Physiological, social, and organizational theories of perception will be considered. Prerequisite: 211 or consent of instructor.

407-3 Theoretical Issues in Learning. An introduction to the major theoretical issues in learning and their importance. A brief review of the history of such problems will be followed by a summary of the current research concerning these issues. Traditional figures in learning theory will be considered within the context of their positions on specific questions. Prerequisite: 309 or equivalent.

History and Systems of Psychology. A review of the conceptual and empirical antecedents of modern psychology. Prerequisite: senior status.

411-3 Principles of Training. An in-depth coverage of practical problems concerned with training to which the principles of learning derived from pure laboratory investigations can be applied. Prerequisite: 309.

415-4 Psychopharmacology. A survey of the effects of drugs on the normal and abnormal

- behavior of humans and animals. A primary focus is upon understanding drug influences on behavior in relation to actions on the nervous and endocrine systems. Prerequisite: GSA 302, GSB 202. Elective Pass/Fail.
- 421-3 Psychological Tests and Measurements.** Introduction to test theory and test development. Detailed coverage of selected tests from such areas as intelligence, aptitude, and personality. Prerequisite: six hours of psychology.
- 431-3 Psychopathology.** Classification, description, etiology, and treatment of the disorders of personality organization and behavioral integration. Observations in a state mental hospital setting. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.
- 432-3 Psychopathology of Childhood.** An extensive review and systematic evaluation of theories and research pertaining to the behavior disorders of childhood. Emphasis will be upon empirical data and the implications of these data for the classification and treatment of these disorders. Prerequisite: 301, and 211 or Guidance and Educational Psychology 422.
- 440-3 Theories of Personality.** A review and evaluation of major personality theories and their supporting evidence. Prerequisite: 30t or consent of instructor. Elective Pass/Fail.
- 451-3 Advanced Child Psychology.** An assessment of concepts, methods, and research techniques within selected topic areas of developmental psychology. Prerequisite: 211 and e01, or consent of instructor.
- 459-3 Theory and Practice in the Preschool.** Designed for those interested in the education of the preschool-aged child. Examines a variety of topics and provides lectures, demonstration, and practicum experience in the Child Study Cooperative Nursery. Prerequisite: consent of instructor.
- 461-3 Advanced Social Psychology.** Examines in depth current research in experimental social psychology. Emphasis is placed on topics such as person perception, interpersonal attraction, attitude formation and change, social influence, group processes, intergroup conflicts. Not for psychology graduate students. Prerequisite: 211, 307.
- 489-1 to 12 Seminar: Selected Topics.** Varied content. Offered as need exists and as faculty interests and time permit. Prerequisite: consent of instructor.
- 509-3 Motivation and Reinforcement in Learning.** Surveys the current experimental and theoretical literature in the areas of simple classical and instrumental conditioning, with emphasis on the parameters of reinforcement and motivation which affect the acquisition, maintenance, and persistence of learned responses in nondiscrimination paradigms. Prerequisite: consent of instructor.
- 510-3 Stimulus Control of Behavior.** Reviews of current literature in the areas of stimulus generalization, transposition, and simple and complex discrimination learning. Major emphasis is placed on the competing models of stimulus control as explained by uniprocess and duoprocess (i.e., attention) theories. The perceptual variables which affect stimulus control are also examined. Prerequisite: consent of instructor.
- 511-3 Human Learning and Memory.** Survey of the current experimental theoretical literature on human learning and memory with primary emphasis on verbal learning and memory. Prerequisite: consent of instructor.
- 512-4 Sensory Processes.** A study of the structure and functions of the sense organs. Emphasizes the psychological data which describe the function of these organs. Lecture and laboratory. Prerequisite: consent of instructor.
- 513-3 Human Psychophysiology.** Physiology, instrumentation, and methodology of psychophysiological measurements including both autonomic and central nervous systems. Attention will be given to basic and applied research. Prerequisite: graduate standing.
- 514-4 Physiological Psychology.** Lecture and laboratory. A survey of the field. Subjects covered include structure and function of the nervous system, neurological disease, sensorimotor physiology, sleep and waking, hunger and thirst, sexual behavior, the emotions, psychopathology, reinforcement, and learning and memory. Prerequisite: consent of instructor.
- 515-3 Theory and Research in Cognitive Psychology.** A detailed survey of current studies of attention, short-term memory, and thought processes. Prerequisite: consent of instructor.
- 522-11 (4, 4, 3) Experimental Design and Analysis.** A relatively detailed treatment of the rationale for quantitative methods in psychological research: (a) experimental design and the analysis of variance; (b) complex designs and extensions of the analysis of variance; (c) Bayesian methods of inference with frequency and measurement data. Prerequisite: Mathematics 111b or consent of instructor.
- 523-2 Research Methods in Clinical and Counseling Psychology.** A discussion of the problems of experimental design, control, and analysis that are encountered by researchers in clinical and counseling psychology. This course emphasizes the application of techniques learned in other courses to the problems of critically evaluating published articles, generating research ideas, and evaluating internal and external validity of experimental designs. Prerequisite: psychology department required statistical sequence.
- 524-3 Multivariate Methods in Psychology.** Detailed treatment of multiple-factor analysis and multiple regression analysis. Also includes introduction to other multivariate methods such as discriminant analysis and cluster analysis. Prerequisite: 522b or consent of instructor.

525-3 Mental Test Theory. Intensive coverage of such topics in test theory as item analysis, reliability, validity, problems of weighting in differential prediction, and problems in selection and classification. Prerequisite: 421 or consent of instructor.

527-3 Theory and Methods of Scaling. The theory of measurement, by which observed behavioral events can be translated into quantitative scales of psychological constructs. The course will cover several axiom systems that form the foundation for psychological measurement, including representation in more than one dimension. Prerequisite: 522b.

530-6 (3, 3) Systems of Personality and Psychotherapy. A survey of the major theories of personality and systems of psychotherapy. Stresses relationship between theory and application. Prerequisite: consent of instructor.

531-3 to 6 Community and Institutional Field Placement. Introduction to a variety of area agencies with each student affiliating with two agencies at least two days per week. Individual and group supervision with special attention to the variety of clinically related problems and approaches to treatment encountered in the course of their activities. Required for clinical students. Prerequisite: 530b psychology graduate in clinical or counseling.

532-2 Experimental Approaches to Personality. Presentation of conceptual formulations and research data from representative experimental approaches to personality. Students will be expected to carry out a research project during the course. Prerequisite: 530a or consent of instructor.

533-2 Experimental Approaches to Psychopathology. An examination of the research literature on several issues in clinical psychopathology. Prerequisite: psychology graduate or consent of instructor.

534-3 Behavior Therapy. (Same as Rehabilitation 554.) A presentation of the clinical techniques and research findings associated with the various behavior therapies (including desensitization, assertive training, modeling, operant techniques, aversive conditioning, self-control, and "cognitive" behavior therapy). Prerequisite: graduate standing in the psychology department (Clinical/Counseling) or consent of instructor.

535-3 Psychopathology. Surveys the following issues and content areas in psychopathology: models and definitions of psychopathology, anxiety states, depression, schizophrenia, neurosis, behavior genetics, the mental hospital, and the classification of psychopathology. This course required for all clinical students within their first two years. Prerequisite: psychology graduate student or consent of instructor.

538-3 Theory and Practice of Group Facilitation. Didactic presentation of group dynamics and group counseling/therapy. Theories coordinated with facilitation of Psychology 101 groups. Prerequisite: graduate status.

539-3 Experimental Approaches to Psychotherapy. A review and evaluation of empirical research related to the amelioration of maladjustment. Emphasis is on measurement and methodological problems. Prerequisite: 530, 537 or consent of instructor.

540-3 Psychological Assessment. Basic theory and practice, underlying assumptions and research data of psychological assessment. Attention given to a variety of assessment procedures, including observation, interviews, and tests of intelligence and personality. Prerequisite: psychology graduate or consent.

542-3 Principles and Problems in Personality Assessment. Critical review of research related to such topics as scale construction strategies, response styles, trait attribution, judgmental accuracy, and judgmental processes. Prerequisite: consent of instructor.

547-3 Appraisal in Counseling. Emphasis is on the choice of assessment instruments and how they may be used in counseling. Attention is given to tests of ability, interests, values and personality and the syntheses of test and non-test information in the general practice of counseling. Prerequisite: 421 or consent of instructor.

548-3 Vocational Psychology and Career Development. Introduces students to vocational psychology as an area of academic inquiry. The topics covered include theories of career development, occupational information, computer applications, research issues, and vocational counseling techniques. Prerequisite: 547 or consent of instructor.

551-3 Advanced Developmental Psychology I. Studies current research trends in experimental child psychology: an introduction to methods and theory, the biological bases of development, infancy, cognition, perceptual development and language. Prerequisite: consent of instructor.

552-3 Advanced Developmental Psychology II. Consideration of current methods, research, and theory in developmental psychology with particular attention to social and personality development, and parent-child relations. Prerequisite: consent of instructor.

554-3 Developmental Theories. An analysis of contemporary theories of development and related research as they are derived from major historical theories of development. Prerequisite: 551 and consent of instructor.

555-3 Language and Cognition. Current theoretical problems in language and cognitive developments are investigated from the perspective of psychology, physiology, linguistics, and computer simulations. Prerequisite: consent of instructor.

556-2 Psychological Treatment of the Child. Investigation of methods of psychotherapeutic intervention with children. Traditional and innovative approaches. Prerequisite: 451 or consent of instructor.

557-2 Family Psychotherapy. Investigation of the psychosocial interior of the family.

Evolution and dynamics of interaction in families. Emphasis on methods of psychotherapeutic intervention with families. Prerequisite: graduate student and consent of instructor.

560-3 Social Psychology Proseminar. An introduction to social psychological theories, followed by an in-depth analysis of selected topics of current interest in social psychology. Emphasis in latter portion of course is on research methodology employed and pertinent theoretical issues. Prerequisite: consent of instructor.

564-3 Evaluations of Social Interventions: Experimental and Quasi-Experimental Approaches. Review of experimental and quasi-experimental designs for assessment of program impact. Discussion of design, logistic, and political implementation problems. Detailed examination of a number of attempts at program evaluation. Prerequisite: 500-level statistics course.

576-3 Human Engineering. Analysis of man-machine systems, human factors in the design of display and control systems, limitations and capabilities of the operator. Lecture and research or field study. Prerequisite: consent of instructor.

585-1 to 18 Advanced Seminar. Seminars of varied content for advanced students. Prerequisite: consent of instructor.

590-1 to 12 Readings in Psychology. Readings in selected topics in psychology under staff supervision. Graded *S/U* only. Prerequisite: consent of instructor.

593-1 to 24 Research in Psychology. Research under staff supervision in selected areas of psychology. Graded *S/U* only. Prerequisite: consent of instructor.

594-1 to 16 Practicum in Psychology. Practicum experience in a professional setting is offered under staff supervision in the following areas: (e) Clinical Psychology; (f) Counseling Psychology; (h) Industrial Psychology; (j) Child Psychology; (i) Teaching of Psychology. Graded *S/U* only. Prerequisite: consent of instructor.

595-1 to 12 Internship. Placement in an approved setting required of all students in clinical, bio-clinical, and counseling psychology. Graded *S/U* only. Prerequisite: psychology graduate student.

597-1 to 15 Preprofessional Training. Experience given in research, teaching, or clinical or counseling activities. One hour required each semester of residence. Graded *S/U* only. Prerequisite: psychology graduate student.

598-3 Ethical and Professional Problems in Psychology. The Code of Ethics in professional practice, in teaching and research; problems and issues of the field are discussed; and relations to other professions and the public are considered. Prerequisite: consent of instructor.

599-1 to 6 Thesis.

600-1 to 24 Dissertation.

Public Visual Communications

The Department of Cinema and Photography and Radio-Television offer 400-level courses toward the Master of Arts degree in public visual communications.

500-3 Introduction to Public Visual Communications. Small group seminars in cinema, still photography and television. Through lectures, demonstrations, discussions and assignments, students are given work in research types and methods, aesthetic and critical theory and print and nonprint publication. 500 is prerequisite to all other courses in the Public Visual Communications program.

510-3 Researching and Developing Public Telecommunications Programming. Designed to train the advanced student in translating public issues into meaningful television programs. Includes organizing and editing results of research into public telecommunications program forms. Extensive reading and preparation of complete scripts. Prerequisite: 500.

530-3 International Telecommunications. Examination of various telecommunications systems of the world. Evolution, present status of these systems, and their probable future. Social, political, cultural, economic, geographic, and technological factors considered. Prerequisite: 500.

531-3 Seminar: Photographic Communication. Study of the public and personal uses of the photograph as a medium for art, communication, and persuasion. Examination of relevant theories of photographic communication. Students purchase texts. Prerequisite: 500.

532-3 Audience Communications Research. Techniques of general broadcast audience research and attitudinal research as it is used in the broadcast industry. Methodology of sampling, and the development of questionnaires to discover audience reactions and attitudes toward broadcast messages. Prerequisite: 500.

541-6 (3, 3) Seminar: History of Photography. Advanced study of the history of photography with emphasis on the development of technique and content. First semester will deal with works through World War II. Second semester will deal with works since World War II. Students purchase texts. Prerequisite: 500.

542-6 (3, 3) Seminar in Film History. Analysis of the films and ideas associated with a

particular director or a significant movement in motion picture history. Screening fee. Students purchase texts. Prerequisite: 500.

570-3 Public Telecommunications Program Analysis and Criticism. Development and applications of methods of analysis and critical criteria by which the content, esthetic elements, and forms of television programs might be objectively evaluated. Extensive reading in critical literature and critical analyses of selected television programs. Prerequisite: 500.

571-3 Regulation and Control of Public Communications. Study of the history of broadcast and film regulation and control. Case studies and research papers illuminate the problems solved. Prerequisite: 500.

572-4 (2, 2) Management of the Photographic Unit. Theory and practices of management in an internal photographic unit or commercial studio. First semester deals with management theory and analysis of various management practices. Second semester involves preparation by each student of a management survey and analysis of an existing unit or studio. Students purchase texts. Prerequisite: 500.

573-3 Public Telecommunications Management. An examination of regulatory, fiscal, programming, and personnel areas involved with the functions of management in local public television station operation. Independent readings and research papers. Prerequisite: 500.

575-3 Contemporary Film Theory. Analysis of film relativity, cinesemiotics, and structuralism. Students purchase texts. Prerequisite: 500.

580-2 Seminar: Current Trends in Public Telecommunications. Detailed examination of current trends affecting public telecommunications. Extensive reading. Social issues, economic pressures, and technological developments will be covered. Prerequisite: 500.

589-3 Seminar: Public Communications in a Dynamic Society. The study, processes and effects of communication through the public media, in historical perspective and in contemporary social problems. In-depth examination of responsible interrelationships of society with electronic, photographic, and film media. Prerequisite: 500.

591-1 to 6 (1 to 3, 1 to 3) Individual Study in Public Visual Communications. Supervised research or independent investigative projects. Area of study to be determined by student in consultation with Public Visual Communications faculty. Prerequisite: 500.

597-2 to 6 Production Seminar: Cinema, Photography, and Television. Individual or production-team projects in motion picture, photographic, or television production. Prerequisite: 500 and 24 hours of completed graduate work or consent of student's committee.

599-3 to 6 Thesis. Thesis requirements may only be satisfied by a traditional written thesis. A minimum of three hours and a maximum of six hours will be counted toward degree requirements. Prerequisite: 500 and 589.

Radio-Television

Graduate work in the Department of Radio-Television is offered toward the Master of Arts degree in public visual communications. Four-hundred-level courses in this department may be taken for graduate credit unless otherwise indicated in the course description.

430-2 Public Affairs and the Radio-Television Establishment. An examination of the history and scope of public affairs programming on radio and television. The effects of public affairs on programming and audiences. Prerequisite: C grade in 300M and 300P.

453-2 Public Broadcasting. The history and regulatory structure of public broadcasting in the United States today, with special emphasis on organizations regulated under the Public Broadcasting Act of 1967. Methods of funding public stations, programming, and careers in public broadcasting area also considered. Prerequisite: C grade in 300M and 300P; 308.

467-3 Radio-Television Production Survey. Production techniques and equipment for all phases of radio and television presentations for those who are not planning professional careers in broadcasting. Standards for equipment and facilities selection. Radio and television laboratory production projects. Prerequisite: non-major.

470-3 Documentary Film Production. For the student with a serious interest in the documentary film. Students work in teams researching, writing, filming, and editing films on subjects relating to historical, cultural, or social issues. Prerequisite: C grade in 300M, 300P, and 370 or C grade in Cinema and Photography 355 and 356 and consent of instructor. Mandatory Pass/Fail. Graduate students must take on letter grade basis.

481-2 ITV Administration, Production and Utilization. Development of ITV production with emphasis on the use of instructional objectives, the relationship of users' manual to the instructional series, and the functions of various personnel in the administration of instructional television. Prerequisite: C grade in 300M and 300P.

483-3 Advanced Radio-Television Writing. Exercises in writing broadcast manuscripts

including documentary, drama, and childrens' programming. Prerequisite: C grade in 300M, 300P, and 383; 340.

489-2 to 6 Radio Television Workshop. Advanced work in various areas of radio television and interrelated disciplines. Prerequisite: C grade in 300M, 300P, and consent of instructor.

491-3 to 6 (3, 3) Independent Study. Area of study to be determined by student in consultation with radio-television graduate faculty. Prerequisite: C grade in 300M and 300P and consent of instructor.

Recreation

Courses in this department may require the purchase of supplemental materials. Field trips are required for certain courses.

401-3 Fundamentals of Environmental Education. (Same as Agriculture 401.)

423-3 Environmental Interpretation. (Same as Agriculture and Forestry 423.)

450-3 Performing Arts in Education and Recreation. Principles, materials, and techniques of producing all types of drama, music, and dance activities for a variety of recreation and education settings and population groups. Prerequisite: consent of instructor.

460-3 Community and Institutional Recreation for Special Populations. Organization and administration of therapeutic recreation programs in hospitals, nursing homes, schools for the retarded, detention centers, prisons, and other institutions. Emphasis on programs for special populations in the community setting. Prerequisite: 300, 305n and 315.

470-2 School and Community Recreation. The role of the public schools in community recreation. Emphasis on current practices and trends in curriculum content, adult education, extracurricular activities, after-school and vacation programs, and cooperative programs with other agencies. Prerequisite: 300, 305, and 315.

475-1 to 24 (1 to 2 per topic) Recreation Workshop. Critical examination and analysis of innovative programs and practices in one of the following areas: (a) commercial, (b) student centers, (c) outdoor education, (d) outdoor recreation, (e) mentally retarded, (f) emotionally disturbed, (g) teen centers, (h) family, (i) aging, (j) prisons and detention centers, (k) physically handicapped, (l) budget and finance, and (m) playground leadership, (n) Maintenance of Areas and Facilities. Critical examination and analysis of innovative programs and practices in the maintenance of grounds and facilities. Maximum of six hours to count toward master's degree.

485-2 to 12 Practicum in Outdoor Education. A supervised experience in a professional setting. Emphasis on administrative, supervisory, teaching, and program leadership in outdoor, conservation, or environmental education setting. Costs for travel are the responsibility of the student. Prerequisite: consent of instructor.

490-2 to 12 Internship in Recreation. Supervised practicum experience in a professional setting. Emphasis on administrative, supervisory, teaching, and program leadership in (A) Park and Community, and (B) Special Population settings. A maximum of 12 hours may be earned in A or B or a combination of the two. For undergraduate credit only. Prerequisite: 16 hours of recreation and consent of instructor.

500-3 Principles of Recreation. Principles and interpretation of recreation and the basic concepts underlying the organization of leisure activities. Emphasis on cultural significance of recreation and the relationship of recreation to the totality of life. Required of all majors.

520-3 Park and Recreation Management. Basis for planning recreation programs and facilities. Administrative problems dealing with legislation, finance, and budget, public relations, office management and personnel are discussed in terms of effective professional management. Prerequisite: 500 or concurrent enrollment or consent of instructor.

530-3 Programs in Recreation. Program planning, organization, and implementation of leisure programs in a variety of recreation settings and for a variety of population groups. Prerequisite: 500 or concurrent enrollment or consent of instructor.

540-3 Planning Outdoor Areas for Education and Recreation. An examination of master plans for outdoor areas used in school and recreation programs. Principles of master-planning and practical experience with the master plan will be correlated. Prerequisite: 500 or consent of instructor.

550-3 Research in Recreation. Critical analysis of the most significant research studies in park and community, special populations, commercial and outdoor recreation. Prerequisite: 530.

565-3 Seminar in Environmental and Outdoor Education. Discussion of individual projects, presentation of research problems and dissertation topics. Prerequisite: consent of instructor.

570-3 Seminar in Recreation Management. An integrated seminar dealing with the problems involving park and community, commercial, institutional, outdoor, church, school,

and other recreation settings and populations. Current economic and social changes will be examined to determine their influence on the recreation profession. Required of all majors. Prerequisite: 520 and 530.

575-1 to 6 Individual Research. Selecting, investigating, and writing of a research topic under the personal supervision of a member of the department. Designed to help the student to develop ability to design, conduct, analyze, and interpret research related to the problem of leisure. Not more than three hours may count toward master's degree. Prerequisite: consent of instructor.

580-1 to 6 Readings in Leisure and Recreation. Readings in selected topics in leisure and recreation under staff supervision. Not more than three hours may count toward master's degree. Prerequisite: consent of instructor.

596-1 to 6 Field Work in Recreation. Field work in an approved recreation department. Field work is in the student's field of interest. Supervision under approved agency officer in charge and a member of the department. Prerequisite: major in recreation and permission of the department.

599-1 to 3 Thesis. Prerequisite: consent of the department.

Rehabilitation

Courses in this unit may require the purchase of supplemental materials not to exceed \$10 per course. Field trips are required for certain courses.

400-2 to 3 Introduction to Rehabilitation. An introduction to the broad field of rehabilitation, to include the processes (services), facilities and personnel involved. Note: Students can enroll in the didactic portion for two credits, or three credits if they elect the field trips. No student can take the field trips alone without taking the didactic portion as well.

402-1 to 3 Human Development and Behavior. Examines theories and systems of human development, personal behavior patterns and learning principles related conceptually to rehabilitation processes and practices.

406-3 Introduction to Behavior Modification. A survey of the principles and procedures in behavior modification and the scope of its application to human needs and problems.

409-3 Scientific Methods in Behavior Analysis. A general review of philosophical issues and methodological approaches to the study of human behavior, includes sampling procedures, group statistical designs and single-subject multi-manipulation and multi-replication tactics. Prerequisite: consent of department.

419-1 to 3 Cross-Cultural Rehabilitation. (Same as Black American Studies 490.) Major focus on the relationship/comparison of basic cultural, economic, and psychosocial processes relative to the rehabilitation of man in contemporary societies. Prerequisite: consent of instructor.

421-3 Vocational Development and Placement. Relates the psychosocial meaning of work, process of vocational development, theories of occupational choice and labor market trends to current and innovative methods of job development, selective placement, and follow-up with the handicapped. Prerequisite: 400 or 501.

425-1 to 6 Developing Employment Opportunities. Designed to train rehabilitation personnel in the attitudes, methods, and skills pertinent to placement of handicapped persons in competitive and other occupations. Prerequisite: special standing and consent of instructor.

431-3 Assessment Procedures in Rehabilitation. Review of fundamental bases of measurement, criteria for evaluating tests, practice with representative instruments in major categories, and the use of tests and work samples in assessing the handicapped's functioning abilities and work potential.

436-3 to 4 Vocational Evaluation and Adjustment Services. Introduction to the philosophies of evaluation and adjustment services in rehabilitation settings with emphasis on the rationale for use of psychometric testing, functional behavioral analysis, work sampling, situational assessment, and on the job evaluation in relation to the development of individualized adjustment service programs.

445-2 to 12 Rehabilitation Services with Special Populations. (Same as Black American Studies 455.) Procedures and programs pertinent to the care and treatment of special populations. Two semester credits will ordinarily be granted for each unit.

(a)-6 (2, 2, 2) **Aging.**

(b)-6 (2, 2, 2) **Alcohol and Drug Abuse.**

(c)-6 (2, 2, 2) **Economically Deprived.**

(d)-6 (2, 2, 2) **Emotionally Disturbed.**

(e)-6 (2, 2, 2) **Genetically Disabled.**

(f)-6 (2, 2, 2) **Juvenile Offender.**

(g)-6 (2, 2, 2) **Mentally Retarded.**

(h)-6 (2, 2, 2) **Physically Handicapped.**

(i)-6 (2, 2, 2) Public Offender.

(j)-6 (2, 2, 2) Sensory Disabled.

(k)-6 (2, 2, 2) Developmentally Impaired. Prerequisite: consent of instructor.

451-3 to 4 General Rehabilitation Counseling. A didactic and experiential analysis of the underlying premises and procedures of individual and group counseling in rehabilitation settings.

453-1 to 4 Personal and Family Life Styling. The academic and personal competencies that are characteristic of fully-functioning, integrated persons within the context of our twentieth century environment will be systematically reviewed for adoption in every day living as well as in professional functions. Participants will focus on and experience life styling theories, models, and skills for their own growth and development and learn to assess basic risk-factors in their rehabilitation clients and families prior to helping them program a more balanced, synergistic, and holistic approach to living.

479-0 to 2 Technical Writing in Rehabilitation. Fundamentals of writing skills applicable to special areas of concern to rehabilitation specialists, namely: writing journal articles, drafting program/grant proposals, and preparing news releases, and program/evaluation reports.

490-1 to 6 (1 to 3 per semester) Readings in Rehabilitation. Supervised readings in selected areas. Prerequisite: consent of instructor.

494-1 to 12 Work Experiences in Rehabilitation. Rehabilitation 494 and 594 both cannot be counted for graduate degree, only one or the other can satisfy requirements toward a master's degree. Elective Pass/Fail.

501-2 Rehabilitation Foundations. Underlying processes and concepts of rehabilitation practices. Prerequisite: consent of instructor.

503-3 Basic Behavior Analysis. Includes pertinent terminology and basic methodology of operant and respondent behavior, as well as laboratory experience in shaping new behaviors and in modifying established behaviors through a variety of operant procedures. Prerequisite: consent of department.

508-3 Complex Behavior Analysis. Experimental analysis of procedures that result in acquisition, maintenance, and attenuation of complex individual and social behavior. Prerequisite: consent of instructor.

513-1 to 3 Medical and Psycho-Social Aspects of Disability. A review of the impact of disease and trauma on the human system with special attention on the effects physical limitations and socio-emotional correlates have on human functioning and the rehabilitation process. Prerequisite: consent of department.

523-3 Job Restructuring for the Handicapped. Introduction to the analysis and measurement of job tasks and the design and layout of work environments with special emphasis on the use of jigs, job restructuring, and prosthetic environments for the handicapped. Prerequisite: 421 and consent of instructor.

531-3 Individual Assessment Procedures in Rehabilitation. Through familiarization and practice with independent assessment devices used in program selection and job placement of individuals with various handicaps. Prerequisite: 431 and consent of instructor.

533-2 Vocational Appraisal. Consideration of the information compiled from interviews, tests, questionnaires, biographies, observations, and other diagnostic techniques in the vocational assessment and planning of vocational rehabilitation services. Prerequisite: consent of instructor.

543-3 Child Behavior. A systematic analysis of the genetic and environmental determinants of childhood behavior. Emphasizes learning approaches for remediation of behavior disorders. Prerequisite: consent of instructor.

545-3 Behavior Modification in Mental Retardation. Consideration of behavioral principles as applied in the development of responsive behavior in mentally retarded persons. Prerequisite: consent of instructor.

553-3 Learning Therapies for Special Populations. Describes treatment, rehabilitation, and teaching procedures with the emotionally disturbed, problem drinkers, mentally retarded, and autisms and other disruptive behaviors. Prerequisite: consent of instructor.

554-3 Behavior Therapy. (Same as Psychology 534.) Considers research findings and basic principles of behavior modification relative to such behavior therapies as desensitization, assertive training, aversive conditioning, and behavior rehearsal. Prerequisite: consent of instructor.

555-2 Contingencies of Reinforcement. Emphasis placed on research into human performances on various reinforcement schedules, and the relevance of these scheduled to human and social needs. Prerequisite: consent of instructor.

562-3 Rehabilitation Facilities and Developmental Centers. Surveys the history and development of rehabilitation facilities and developmental centers for the handicapped and then focuses on current principles and practices of these facilities in terms of nature, classification, objectives, standards, philosophies, theories, programs of services, organization, administration, financing, and trends for the future. Prerequisite: consent of instructor.

564-3 School Related Behavior. Analysis of student and teacher behavior and the be-

havioral methods of improving teaching and learning. Prerequisite: consent of instructor.

568-3 Sexual Behavior and Rehabilitation. Consideration of human sexual behavior including basic anatomy and physiology; sexual facts and fallacies; and analysis of sexual inadequacies, variances, and deviances. Special emphasis is placed on the application of therapies for the rehabilitation of people with sexual problems. Prerequisite: consent of instructor.

570-3 Rehabilitation Administration. Problem solving approach to current issues in organizational structure and management functions in public and voluntary rehabilitation agencies, decision making, leadership, program development, and evaluation. Prerequisite: consent of instructor.

572-1 to 3 Volunteer Administration and Programming. Practice of developing, organizing, and programming volunteer activities in the human services. Prerequisite: consent of department.

573-2 to 3 Programming, Budgeting, and Community Resources. Designed to prepare the student to develop and operate comprehensive or specialized rehabilitation programs with special attention to resource development, fiscal management, and community and public relations. Prerequisite: consent of instructor.

575-2 Case Management and Reporting. Basic procedures in providing and coordinating available human services based on individual need in the context of a professional-client relationship, and the basics of recording and reporting such services. Prerequisite: consent of department.

576-2 to 3 Development and Supervision of Rehabilitation Employees. Current and progressive supervisory practices in rehabilitation with emphasis on employee development through in-service training, periodic evaluation, and related methods. Prerequisite: consent of instructor.

577-1 to 2 Behavioral Apparatus. Utilization of various electronic devices (standard and constructed) to record, measure, and control behavior in research and applied settings. Prerequisite: consent of instructor.

579-3 Advanced Fiscal Management in Rehabilitation. Application of funds and functional accounting in rehabilitation to include fiscal reporting and record keeping, fiscal planning, and management in rehabilitation. Prerequisite: 570 and 573.

582-1 to 4 Seminar in Rehabilitation Services. Special consideration of factors in the organization and management of rehabilitation services. Prerequisite: consent of instructor.

583-1 to 4 Seminar in Work Evaluation. Select attention to procedures/models for assessing work readiness of handicapped personnel. Prerequisite: consent of instructor.

584-1 to 6 (1 to 2 per semester) Seminar in Behavior Modification. Special topics and new developments in modifying human behavior. Prerequisite: consent of instructor.

585-1 to 4 Seminar in Counseling/Coordination Services. Consideration of special issues in counseling and delivery of services. Prerequisite: consent of instructor.

591-1 to 6 Independent Projects in Rehabilitation. Systematic readings and development of individual projects in pertinent rehabilitation areas. Prerequisite: consent of instructor.

593-1 to 6 Research in Rehabilitation. Systematic investigation of factors and procedures relevant to rehabilitation. Prerequisite: consent of instructor.

594-1 to 12 Practicum in Rehabilitation. Supervised experiences in agencies in rehabilitation. (a) Administration. Rehabilitation facilities management/supervision, in planning, programming and evaluation. (b) Behavior Modification. Application of behavioral analysis/methods in human treatment and in management. (c) Counseling. Development of counseling skills with individuals and groups to include work related functions. Prerequisite: consent of department.

595-1 to 12 Internship in Rehabilitation. Extended practice in rehabilitation settings cooperatively guided and supervised by agency staff and university faculty. Prerequisite: 594 and consent of department.

599-1 to 6 Thesis. Prerequisite: consent of instructor.

Religious Studies

There is no graduate program offered through religious studies. Four-hundred-level courses in this unit may be taken for graduate credit unless otherwise indicated in the course description.

410F-3 Comparative Religion. (See Anthropology 410F.)

430-4 Religious Traditions of Southern Illinois. Intensive study based upon field experiences in the religious (popular and traditional) of Southern Illinois. Not for graduate credit.

441-3 Themes in Greek Tragedies and the New Testament. (See Classical Studies 441.)

496-1 to 6 Honors Readings in Religion. Topics selected by student and instructor which ordinarily are not covered in depth in regular course offerings. Not available for graduate credit. Prerequisite: consent of department.

Science

500-2 Science Information Sources. Methods and procedures to efficiently exploit the scientific literature are discussed. The two-hour class discussion will be supplemented by practical exercises in library usage. Prerequisite: consent of instructor.

Social and Community Services, Division of

Black American Studies

There is no approved graduate program in black American studies. Four-hundred level courses may be taken for graduate credit unless otherwise indicated in the course description.

430-3 Black Political Socialization. Definitive approach to how people learn about politics focusing on Blacks because of their unique experience; i.e., prolonged minority group status. Research oriented, in that, it takes an explanative and predictive approach to produce models of political learning. Not for graduate credit. Prerequisite: 230, junior or senior standing, or consent of instructor.

445-3 Race and Politics. (See Political Science 429.) Not for graduate credit.

445-2 to 12 Rehabilitation Services with Special Populations. (See Rehabilitation 445.)

465-3 Governments and Politics of Sub-Saharan Africa. (See Political Science 465.) Not for graduate credit.

475-3 Sociological Effects on Black Education. A teacher-oriented course dealing with up-to-date research in black and minority education. The instructor utilizes the findings of current periodicals to present models for understanding and communicating with Black children. Not for graduate credit. Prerequisite: Education 303 or consent of department.

480-4 to 8 (4, 4) Seminar in Black Studies. Analyses of the the black experience directed toward practical contributions in the area studied. Topics vary with instructor. May be repeated once for a total credits provided registrations cover different topics. Topics announced in advance. Prerequisite: GSB 109 or consent of department.

490-1 to 3 Cross-Cultural Rehabilitation. (See Rehabilitation 419.) Not for graduate credit.

499-1 to 5 Special Readings in Black American Studies. Supervised readings for students with sufficient background. Registration by special permission only. Offered on demand. Prerequisite: consent of instructor.

Community Development

401-3 Introduction to Community Development. This survey course is designed to provide a general understanding of community development. It includes an analysis of the history, values and techniques of various approaches to community development and explores some of the specific social issues and problems which confront community development practitioners. Elective Pass/Fail.

402-3 Comparative Community Development. Surveys the historic, economic, organizational and other aspects of international community development programs under the auspices of world and regional agencies or of multi-national, national or local sponsorship, focusing primarily upon specific case studies. Elective Pass/Fail.

403-3 Citizen Roles in Human Services. Examines citizen and consumer participation in human services delivery in four major areas: government-sponsored agencies, advocacy organizations, para-professional services and professionally staffed volunteer agencies. Concepts of citizen participation, history and dynamics of consumer movements, case studies. Elective Pass/Fail.

404-3 Role Theory and Analysis in Community Development. The focus of this course is on role theory and methods of analysis. The student will gain considerable exposure to the techniques of role analysis as an evaluation tool in community development training and program development. Elective Pass/Fail.

405-3 Social Planning. Introduction to the methods, practices, functions, and ethics of social planning in the United States, including a critical perspective. Criminal justice, health, manpower, welfare, and other sectors of social planning will be discussed to illustrate the principles of social planning.

491-1 to 6 Independent Study in Community Development. Supervised individual study and projects in fitting with the needs of each student. Prerequisite: consent of instructor. Elective Pass/Fail.

497-1 to 12 (1 to 3 per topic) Seminar in Community Development. The identification and analysis of special problems in community development. (a) Project funding, evaluating, and reporting; (b) Central and peripheral systems in community development; (c) Community development cooperatives and credit unions; (d) Research problems and methods; (e) Special problems. Credit limited to not more than three per topic and not more than 12 total. Elective Pass/Fail.

500-3 Research Seminar in Community Development. Flexibility designed to help meet the needs of students planning individual research projects, especially terminal research projects or master's theses.

501-4 Small Group Process in Community Development. A combination of theory and experiential laboratory. Focuses on *how to work* in small groups. Examines small group processes, including: informal personal interaction, formal problems-solving and decision-making, problems of communication, authority, establishing and reaching goals utilizing resources, and evaluating outcomes.

502-3 Community and Change. Attempts to create a conceptual understanding of the mechanisms of planned change at the community level. Conceives community as a political system and the planning of change as a political process. Micro-macro links and changing patterns of community in the United States and elsewhere are explored. Empirical investigation of planned change experiences, analysis of careers and evaluation of change decisions.

503-3 Problems of and Approaches to Community Development. Focuses upon a range of community development problems, models and practical skills. Observation of field consultants, community organizers and agencies, and persons skilled in and programs demonstrating distinctive approaches to community development. Prerequisite: 401.

589-2 Professional Seminar in Community Development. To prepare student for supervised field internship experience. Must be taken concurrently with (or as a prerequisite to) 595, Internship.

593-1 to 6 Individual Research in Community Development. Enables an advanced student to do independent study in community development under the supervision of a faculty member or to pursue work on a terminal research report or advanced field project. Prerequisite: 500 and consent of instructor.

595-1 to 8 Internship. Five hours required for M.S. degree in community development; part-time (50 clock hours per hour of credit) supervised field experience in an approved setting to develop mastery of appropriate skills; student expected to demonstrate personal and professional growth and to increase ability to reflect upon and conceptualize the field experiences. Graded *S/U* only. Prerequisite: 589 or concurrent enrollment and consent of field adviser.

599-1 to 6 Thesis Research. Credit is given for work accomplished on a master's thesis when it is accepted and approved by the thesis committee. Prerequisite: 500 and approval of thesis committee chairman.

Social Welfare

There is no approved graduate program in social welfare. Four-hundred level courses may be taken for graduate credit unless otherwise indicated in the course description.

401-4 Processes in Social Work (Casework). Analysis of generic base of social work, of theory, rationale, and practice of casework. Prerequisite: 375.

402-3 Processes in Social Work (Social Group Work). Analysis of social group work, community welfare organization methods, and interventive techniques. Not for graduate credit. Prerequisite: 375.

404-3 Integrated Methods in Social Work. A seminar approach to exploring the interrelationship of casework, groupwork, and community work in synthesizing a gestalt impact on intervention and problem-solving techniques. Not for graduate credit. Prerequisite: 441, 442 or concurrently with 442.

411-3 Methods of Social Research. Principles and methods of scientific inquiry applied to social work research and practice. Required for undergraduates. Not for graduate credit. Prerequisite: 375.

416-3 Human Behavior and the Social Environment. A social systems approach to the study of human development and behavior. Examination of environmental forces impinging on the individual and implications for social work practice. Prerequisite: 375 and at least one approved upper division course in psychology, sociology and political science. Open to College of Human Resources majors only.

421-3 Seminar in Problems and Issues in Social Welfare. Critical evaluation of contemporary social work practice, innovations, social policy, and planning. Prerequisite: 401, 402, 441, 442 or concurrently with 442.

426-2 Comparative Social Welfare Systems. An examination of social welfare policies

and practices in other countries and by international organizations. Prerequisite: 375.

441-7.5 Social Work in Selected Agencies. At least 20 hours per week of supervised experience in an approved social work agency with concurrent weekly seminar. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 383, 401, 402, and a 2.5 grade point average in departmental prerequisites. Mandatory Pass/Fail.

442-7.5 Advanced Field Practicum. Supervised field work experience in an approved social service agency with concurrent weekly seminar. At least 20 hours per week. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 383, 401, 402, and a 2.5 grade point average in departmental prerequisites. Mandatory Pass/Fail.

451-2 Seminar in Social Casework. A problem-solving approach based on case studies aims to explore alternate methods in counseling of individuals and families. Prerequisite: consent of instructor.

452-2 Seminar in Group Treatment. Study of theory and practice in social group work covering various methods of group treatment interventions. Prerequisite: consent of instructor.

453-2 Seminar in Community Work. Study of variety of strategies of intervention in agency and grass roots decision-making processes leading to social change through citizen participation. Prerequisite: consent of instructor.

461-2 Child and Family Services. Problems of child-parent relationships and difficulties in social functioning of children and adolescents. Adoptions, foster home and institutional placements, protective services. Prerequisite: consent of instructor. Elective Pass/Fail.

462-2 School Social Work. Organization, development, and administration of school social work. Referrals for school social work services. Functions and responsibilities related to pupil personnel services. Evaluation, school placement, remedial procedures, cooperation with home and community agencies. Prerequisite: consent of instructor.

463-2 Social Work with the Aged. Basic concepts of social work methods applied to the older adult group. Characteristics of the aged group, its needs and potentials. Social trends and institutions involved in services to the aged. Prerequisite: permission of instructor.

464-2 Public Welfare. Social work knowledge, values, and techniques in public assistance. Care and rehabilitation of the public welfare client affected by social problems and social change. Prerequisite: consent of instructor.

465-2 Strategies in Health and Mental Health. A survey of current legislative and service trends in health programs under governmental and voluntary auspices. Preventive and restorative concepts will be explored in relation to chronic disease, aged adults, maternal and child health, and community health services. Role of social workers as an integral part of the medical and psychiatric case system. Prerequisite: consent of instructor.

496-1 to 6 Independent Research in Social Welfare. Not for graduate students. Prerequisite: consent of instructor.

Sociology

406-4 Social Change. Theories and problems of social change; their application, with emphasis on the modern industrial period. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

415-3 Logic of the Social Sciences. (See Philosophy 415.)

424-4 Social Movements and Collective Behavior. A sociological analysis of the behavior of collectivities in uninstitutionalized settings; crowds, masses, publics, and social movements will be examined with relation to their social and cultural backgrounds, forms of expression and organization, and their functions in society. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

426-4 Social Factors in Personality and Adjustment. Review of selected theoretical orientations and research traditions in social psychology. Comparison of different theoretical and methodological approaches — symbolic interaction, role theory, developmental social psychology, theories of attitude organization and change, studies of belief and value systems, theories of socialization. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

435-4 Social Stratification. A comparative study of social class systems, with emphasis on the American system. Relationships of class position to behavior in family, religion, politics, etc. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

437-4 Sociology of Rural Development. Rural development and rural social problems in the United States and other countries. Concepts of rural and urban, developed and underdeveloped, characteristics of rural populations and institutions; rural development analyzed functionally and historically. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

450-4 Social Thought. Traces of historical development of sociology from its beginnings in the Enlightenment to the classical expositions of the early 20th Century. Prerequisite: 301 or consent of instructor.

454-4 Sociology of Science. Emphasis on the origins and growth of science in historical

perspective, reciprocal relations between science and society in the 20th Century, science as a social system, differentiation within and relations between disciplines, and implications of the social organization of scientific research and funding. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

460-4 Sociology of Medicine. Examination of the sociological factors involved in health and illness, the role of medicine in society, the organization of medical care and health institutions in the United States, and the prospects for sociological research in this area. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

465-3 Sociology of Aging. The adult life cycle from a sociological perspective, with emphasis on the later stages of adulthood. Special topics on aging include demographic aspects, family interaction, ethnicity, and cross-cultural trends.

471-4 Demography and Human Ecology. The demographic portion surveys general theory and techniques of population analysis, with emphasis on contemporary research in mortality, migration, fertility, and problems of world population growth and distribution. The ecological portion summarizes human ecology from the classical Chicago school to current research on sustenance organization and the division of labor. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

472-3 The American Correctional System. (See Administration of Justice 472.)

473-4 Juvenile Delinquency. (Same as Administration of Justice 473.) Nature of sociological theories of delinquency; analytical skills in studying the delinquent offenders; systematic assessment of efforts at prevention, control, and rehabilitation in light of theoretical perspectives. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

475-4 Political Sociology. (Same as Political Science 419.) An examination of the nature and function of power in social systems at both the macro- and micro-sociological levels of analysis, the social bases of power and politics; and various formal and informal power structures; the chief focus will be on American society. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.

497-4 Senior Seminar. Contemporary issues in sociology and the analysis of these issues. Prerequisite: senior standing with 20 hours in sociology (including 301), or consent of instructor. Elective Pass/Fail.

498-1 to 4 Independent Research. With a faculty member the student arranges a research topic resulting in a paper or report. Prerequisite: senior standing with 20 hours of sociology (including 301), and consent of instructor. Elective Pass/Fail.

498H-1 to 4 Honors Independent Research. Advanced research study of a problem. Not for graduate students. Prerequisite: senior standing with 20 hours in sociology (including 301) and consent of department and honors standing. Elective Pass/Fail.

501-4 Survey of Sociological Theory. From synthetic philosophy to analytic sociology: the development of sociology as a science of society, with special considerations of the major schools and trends.

502-4 Seminar on Theoretical Systems in Sociology. Concentrated, in-depth analysis of selected theoretical systems in sociology. Topic will vary by agreement of participants. Prerequisite: admission to doctoral program in sociology or consent of instructor.

506-4 Seminar on Contemporary Sociological Theory. Recent trends in sociological theory; current approaches to the construction and application of theoretical models and their relations to empirical research. Prerequisite: 501 or consent of instructor.

512-5 Sociological Research. Application of the scientific method of sociological problems. The role of theory. Principles of good research design, measurement, sampling, and research. Under guidance of instructor, students perform a complete research project from devising a research project to writing a scientific report of the project. Prerequisite: at least one course in statistics and five in sociology.

519-4 Methodological Foundations of the Social Sciences. Seminar on selected problems of social science methodology; the nature of social phenomena; basic problems of epistemology, concept formation, and logic of scientific procedures. Prerequisite: consent of instructor.

521-4 Seminar in Social Psychology. In-depth examination of specific theoretical systems or substantive problems in social psychology. Students wishing specific information on the topic of the seminar should consult with the instructor for more detail. Prerequisite: 426 or consent of instructor.

522-4 The Sociology of Small Groups. The study of the small group as a small-scale social system. The interrelationship between selected patterned properties of groups such as interaction, emotion, norms, beliefs, values, and myths as the group encounters and attempts to deal with basic problems of group development. Prerequisite: 426 or consent.

526-8 (4, 4) Quantitative Methods in Sociology. (a) Linear causal models as a tool in theory and research. Central tendency, variation, covariation, and correlation. Bivariate and multivariate regression models. Path analysis and related techniques. Bivariate and multivariate statistics for nominal and ordinal measures. (b) Application of linear models. Linear models of measurement error, reliability and validity. Models of reciprocal causation feedback and control. The identification problem. Must be taken in a,b sequence. Prerequisite: graduate standing.

529-4 Sampling and Inference in Social Research. Probability. Sampling distributions.

Sampling designs. Point and interval estimation. Analysis of variance. Hypothesis testing: parametric and nonparametric approaches. Power and efficiency of statistical tests. Prerequisite: consent of instructor.

530-2 to 12 (2 to 4 per topic) Topical Seminar in Sociology. Content varies with interests of instructor and students. Prerequisite: consent of instructor.

532-4 Urban Social Structure. Theories of urban social structure and change, with emphasis on the comparative analysis of ecological and normative processes of integration and disintegration in modern urban communities.

537-4 Sociology of Law. An analysis of the role of law in society. Special emphasis will be given to the relationships between law and social organization, social control, value systems, and social change; consideration will be given to research in the field. Prerequisite: 15 hours of sociology and consent of instructor.

539-4 Seminar in Complex Organization. Emergence and structure of bureaucratic organization. Bases of authority, systems of formal and informal relations, unanticipated consequences. Occupations and professions in complex organizations, line-staff relations, technological changes, and work roles.

542-4 Seminar on the Family. The family as a field of sociological study. Assessment of significant historical and contemporary writing. Prerequisite: 15 hours of sociology including 340 or consent of instructor.

543-4 Seminar in Family Variability and Change. An analysis of the structure, organization, and function of the family in several contemporary and primitive societies. Prerequisite: 15 hours of sociology including 340 or consent of instructor.

551-4 Sociology of Religion. Theoretical and empirical study of the origin, location, and function of religious ideas and institutions in society.

562-4 Deviance and Disorganization. Critical study of sociological theories of social deviance and disorganization and their role in understanding pathologies like alcoholism, homicide, and suicide which exhibit marked variation in group rates. Prerequisite: 15 hours of sociology or consent of instructor.

564-4 Social Factors in Health and Illness. Examination of the significance of social organizational and social psychological factors in the occurrence and treatment of disease and illness. Consideration given to current health care issues, as well as to pertinent theoretical and empirical contributions in the area. Prerequisite: consent of instructor.

566-4 Sociology of the Community. A detailed analysis of theories and methods of research which have the community as their unit of analysis. Both case studies and comparative approaches will be included, and both rural and urban communities will be considered. Prerequisite: two sociology courses or consent of instructor.

572-4 Seminar in Criminology. (Same as Administration of Justice 572.) Critical study of important research and theoretical analyses. Prerequisite: consent of instructor.

574-3 to 4 Seminar in the Sociology of Education and Science. An international and comparative perspective. Focus on various topics in the sociology of education and science.

591-1 to 4 Individual Research—Supervised Research Projects. Open to graduate students with a major in sociology. Credit according to achievement. Prerequisite: consent of instructor and chairman of department.

596-1 to 8 Readings in Sociology. Supervised readings in Selected subjects. Prerequisite: consent of instructor and chairman of department.

599-1 to 6 Thesis. Prerequisite: consent of chairman.

600-1 to 32 (1 to 16 per semester) Dissertation. Prerequisite: consent of chairman.

Special Education

400-3 Introduction to Special Education. Physical, mental, emotional, and social traits of all types of exceptional children. Effects of handicaps in learning situations. Methods of differentiation and techniques for rehabilitation. Case studies, observations, and field trips may be required.

401-3 Problems and Characteristics of the Behavior Disordered Child. Diagnosis, screening, classroom management, placement considerations, goals, and the effective use of ancillary services for school children who are emotionally disturbed and/or socially maladjusted. Emphasis on the understanding of maladaptive behavior through principles of learning and behavior. Prerequisite: 400 or concurrent enrollment or consent of department chairman.

402-2 Problems and Characteristics of the Mentally Retarded Child. Emphasizes a developmental approach to understanding and dealing with children who have mildly and moderately reduced mental abilities. Considers historical, theoretical, and practical factors pertinent to mental retardation. Prerequisite: 400 or concurrent enrollment or consent of department chairman.

403-3 Problems and Characteristics of the Gifted Child. Designed to help teachers in the identification of and programming for gifted and talented children. Prerequisite: 400 or concurrent enrollment or consent of department chairman.

404-3 Problems and Characteristics of the Learning Disabled Child. Behavioral, emotional, physical, and learning characteristics of children with learning disabilities. Emphasis on receptive and expressive modalities for learning; theories dealing with causes and management. Prerequisite: 400 or concurrent enrollment or consent of department chairman.

405-3 Education of the Preschool Handicapped Child. Emphasizes classroom procedures for enhancing development in children with developmental delay. Covers organization of the curriculum, goal setting, task analysis, lesson planning, and classroom organization. Practicum with preschool handicapped children is an integral part of this course. Prerequisite: 400, concurrent enrollment, or consent of chairman.

406-2 Characteristics of the Severely Handicapped Child. Provides the basic developmental, psychological, intellectual, and curricular background essential to students wishing to teach in this area of special education. The course requires 30 hours of lecture and 15 hours of lab with severely handicapped children. Students will be video-taped for self critique and progress evaluation. Prerequisite: 400 or consent of department chairman.

409-1 to 6 Cross-Cultural Studies. Seminar and/or directed independent study concerned with socio-cultural variables affecting the personality characteristics and educational needs of children who are diagnosed as mentally, emotionally, or physically handicapped. Prerequisite: 400, consent of instructor and department chairman.

411-3 Assessment and Planning for Remediation in Special Education. Theories of special tests and development of remedial programs for children with special learning problems. Purchase of testing materials costing approximately \$5 is required. No text is required. Prerequisite: 400 and consent of department chairman.

412-3 Assessment and Remedial Planning for the Preschool Handicapped Child. An introduction to the assessment of preschool handicapped children including the specifics of screening, tests used by the classroom teacher and observational procedures. A charge of \$5 for testing materials is required. No textbook is required. Prerequisite: 400 and 405.

417-2 Methods and Materials for Teaching Behaviorally Disordered Children at the Elementary Level. Psychoeducational procedures used in teaching the behaviorally disordered child. Includes field trips, meetings with parents, and visits by resource persons from schools and agencies. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.

418-2 Methods and Materials for Teaching Educable Mentally Handicapped Children at the Elementary Level. Psychoeducational strategies for teaching the educable mentally handicapped child. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.

419-2 Methods and Materials for Teaching Learning Disabled Children at the Elementary Level. Psychoeducational strategies used in teaching children with learning disabilities. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.

421-3 Methods and Materials for Teaching Pre-School or Elementary Severely Handicapped Learners. Emphasis on methods of teaching those with severe handicaps. Minimum of one video-taping session, and individualized tutoring, are required of all participants. Prerequisite: 411 or 412; concurrent enrollment in Education 312 and Education 400.

423-2 General Procedures in Special Education. Deals with methods, materials, and instructional management practices common to the instruction of the handicapped. Prerequisite: 411 or 412; concurrent enrollment in Education 312.

425-2 Home-School Coordination in Special Education. Consideration of the techniques used in parent interviews, conferences, and referrals by school personnel with parents of handicapped children. Prerequisite: 400 or consent of department chairman.

430-2 Work-Study Programs for Handicapped Adolescents to Age 21. Deals with modifications of and additions to school programs to insure that they are appropriate to the needs of the mildly handicapped adolescent. Includes detailed coverage of joint work-study programs as preparation for vocational adequacy. Prerequisite: 400 and one of 401, 402, 403, or 404.

431-2 Work-Study Programs for Severely Handicapped Adolescents to Age 21. Deals with program offerings in public school special education programs designed to prepare the severely handicapped adolescent for his maximum vocational adequacy. Prerequisite: 400 and one of 401, 402, 404, or 406; concurrent enrollment in Education 312.

456-4 (2, 2) Music for Exceptional Children. (See Music 456.)

490-1 to 5 Readings in Special Education. Study of a highly specific problem area in the education of exceptional children. Open only to selected seniors and to graduate students. Prerequisite: 400 and consent of department chairman.

500-3 Special Education Research Problems. Research design and methodology in special education. Prerequisite: consent of instructor.

502-2 Special Education Research Paper. Development and performance of research study under direction. Prerequisite: 500, consent of instructor.

505-3 The Pre-School Handicapped Child. Deals with the philosophy and practices involved in the development and maintenance of educational programs for pre-school age handicapped children in the community.

511A-3 Advanced Assessment and Remedial Planning in Special Education. Administration and interpretation of typical instruments used to gain information to be used in remedial planning for children in special education programs. Designed to provide student with thorough knowledge of testing procedures, this course will include supervised practicum in testing and development of remedial programs. Prerequisite: 411.

511B-3 Advanced Remediation in Special Education. Designed to provide the graduate student with experience in designing and carrying through with a remedial program. Prerequisite: 511A.

512-3 Advanced Assessment and Remedial Planning for the Preschool Handicapped Child. Advanced diagnostics with preschool handicapped children. A clinic based practicum experience in the evaluation of preschool handicapped children. Prerequisite: 412, 405 or concurrent enrollment, and consent of instructor and chairman.

513-3 Organization, Administration, and Supervision in Special Education. Emphasis upon the functions, underlying principles, and cautions to be observed in the organization and administration of special education. The selected and training of teachers, problems of supervision, special equipment, transportation, cooperating agencies, and legal aspects of the problem. Prerequisite: 400, consent.

514-3 Simulation of Administrative Tasks in Special Education. Development of skills required of special education administrators and supervisors through the use of simulation materials focusing on these skills. Prerequisite: 400 and consent.

515-2 Itinerant and Resource Teaching in Special Education. The role, responsibilities, problems of the itinerant and resource teacher in special education. Alternate systems and models for providing educational experiences for handicapped children. Review of the role and responsibilities of other ancillary school personnel. Prerequisite: 410a,b,c,e; consent of instructor.

517-2 The Atypical Child and Social Agencies. A survey of social agencies contributing to the welfare and care of exceptional children. Emphasis is given to services rendered and to method of contact and costs. Specialists invited to appear before the class. Prerequisite: 400 and consent.

518-2 to 6 Workshop in Special Education. Topical workshops centered on current practices and new developments in special education. Designed to promote better understanding of the psychological and educational problems of exceptional children. Specialists used as consultants. Open to graduate students majoring in education, guidance, or special education with consent of instructor and department chairman. Graded *S/U* only. Prerequisite: 400 and consent of instructor and department chairman.

580-3 Master's Seminar: Issues and Trends in Special Education: Analysis of research, trends, and programs in the education of handicapped children. Open to graduate students in special education only. Prerequisite: 400, consent of instructor and department chairman.

582-2 Post-Master's Seminar: Remedial Models in Special Education. Critical discussion of eight major intervention models used historically and currently with handicapped children in educational settings. Prerequisite: consent of instructor.

583-2 Post-Master's Seminar: Program Coordination in Special Education. Analysis of organizational principles and practices required for the creation and maintenance of programs to meet the needs of persons who are handicapped and require specialized educational programs within the school setting. Prerequisite: consent of instructor.

584-2 Doctoral Seminar: Research in Special Education. An analysis of purposes, approaches, design, methodology, and applications of experimental studies of handicapping conditions, as they relate to special education. Prerequisite: 582, 583.

585-2 Doctoral Seminar: Evaluation in Special Education. An analysis of the purposes, approaches, design, methodology, and applications of evaluative studies in special education. Prerequisite: 582, 583.

591-2 to 5 Independent Investigation. A field study required of each student working for the sixth-year degree. Conducted in a school system where full cooperation is extended. The study will involve selection of a problem, surveying pertinent literature, recording results, and appropriate interpretations and summaries. Prerequisite: consent of instructor.

594-1 to 6 Practicum in Special Education. Supervised experience in school or institutional programs for atypical children. Special research project. Open to graduate students only. Prerequisite: consent of instructor and department chairman.

600-1 to 32 (1 to 16 per semester) Dissertation. Prerequisite: consent of chairman.

Speech Communication

Courses in this department may require the purchase of additional textbooks or materials.

401-3 Communication Theories and Models. An introduction to theory construction and

model utilization in communication research. Critical analysis of existing communication theories in the social sciences as a basis for generating new models. Emphasis on the heuristic nature and function of the language/speech act paradigm in communication studies.

402-3 Empirical Research in Speech Communication. Principles of research design accompanied by a critical examination of research on oral communication. Prerequisite: 401 or consent of instructor.

421-3 to 9 (3, 3, 3) Studies in Public Address. Critical studies of speakers and issues relevant to social and political movements dominant in national and international affairs. A lecture, reading, and discussion course. Students may repeat enrollment to a total of nine hours. Prerequisite: for undergraduates, 311 or consent of instructor.

430-3 Speech in Elementary Schools. Survey of normal speech development with emphasis on the elementary school years. Concept of speech as skill to basic reading, writing, and spelling. Psychological and sociological variables affecting language as it relates to school learning. Speech experiences supportive of the child's linguistic, intellectual, and social development.

431-3 Speech in Secondary School. Philosophy of speech education, and effective teaching of speech through curricular and extra-curricular work. Prerequisite: twelve hours of speech.

432-3 Secondary School Forensic Program. Designed to evaluate and plan the proper role of forensics in the secondary school and to prepare the students for their tasks as teachers and administrators in that program. Not for graduate credit. Prerequisite: 325, GSC 200.

433-3 Creative Dramatics for Children. Materials, techniques, and procedures for conducting sessions in informal drama with emphasis upon its contribution to the total growth and development of the child. Includes lectures, observations, student participation. Prerequisite: concurrent enrollment in 490f-1 or consent of instructor.

435-3 to 6 (3, 3) Topics in Creative Dramatics. An exploration of advanced theories and techniques for conducting sessions in informal drama. Topics vary and are announced in advance. Students may repeat enrollment in the course, since the topics change. Lecture, discussion, class projects, school visitations.

440-4 Language Behavior I. Psycholinguistic approach to the study of language learning and the early use of language. Theories and research in normal acquisition and development of grammatical structures, basic semantic categories, and rules of use in speech. Application of theories and research in first language learning to acquiring second languages.

441-4 Language Behavior II. Applicability of psychological and linguistic theories to social psychological aspects of speech communication. Relation of speech to other developing behaviors with particular attention to theories of cognition. Study of psychological and sociological variables affecting the functions of language for individuals and societies.

442-3 Psychology of Human Communication. Nature, development, and functions of verbal and nonverbal behavior; application of psychological theories and research to the communication process in individuals and groups. Emphasis on the systemic nature of communicative behavior.

443-3 General Semantics. Formulations from the works of Alfred Korzybski and from neo-Korzybskian interpreters are presented. General semantics is discussed as an interdisciplinary approach to knowledge. Relationships are made to contemporary problems in human affairs.

444-3 Language of Young Children. For teachers of young children and students of language. Theory of the development of language with attention to maturational and environmental correlates. Study of children's spoken language encoding and decoding behavior in relation to development of secondary skills of reading and writing and to general cognitive development.

445-3 Semiology and Semiotic Communication. Advanced study of sign, signal, and symbol systems in the phenomenology of communication. Systematic analysis of the metatheory relationship between expression and perception as manifest in verbal and non-verbal communication systems. Emphasis on semiology as a communication theory in the human sciences. Some consideration of related theories such as structuralism, interspecies communication, human/machine communication, and general systems theory. Prerequisite: 340 or 361 for undergraduates, 401 or 440 for graduate students, or consent of instructor.

451-3 Political Communication. (Same as Political Science 418.) A critical review of theory and research which relate to the influence of communication variables on political values, attitudes, and behavior. Prerequisite: 358 or consent of instructor.

452-3 Interpersonal Communication and the Mass Media. A review, synthesis, and analysis of communication theory and research which deals with the process, interactive nature of interpersonal and mass channels of communication. Prerequisite: 401 or consent of instructor.

461-3 Laboratory in Interpersonal Communication I. Interpersonal communication is studied as human encounter. The philosophy and theoretical bases of existential phenomenological approaches to human communication are discussed. Projects are evolved by small groups that contribute to the understanding of human communication.

462-3 Laboratory in Interpersonal Communication II. Various theories of social and

cultural change are explored. The role of interpersonal communication in the development of human consciousness is explicated. Projects are evolved by small groups that examine values and priorities of human nature and cultural nature.

465-3 Philosophy of Language. (See Philosophy 425.)

471-3 Oral Interpretation: Prose. The study of the prose form through analysis and performance. Prerequisite: 370, GSC 200 or consent of instructor.

472-3 Oral Interpretation: Poetry. The study of poetic form through analysis and performance. Prerequisite: 370, GSC 200 or consent of instructor.

474-3 Group Performance: Readers Theater. Theory and practice in constructing and staging the compilation script form. Prerequisite: 370, or consent of instructor.

475-3 Group Performance: Chamber Theater. Theory and practice in adapting and staging prose fiction. Prerequisite: 370 and 471, or consent of instructor.

480-3 Studies in Organizational Communication. Study of communication systems and behavior within organizations. Demonstrates the relevance of communication to management operations, networks, superior-subordinate relations, production, employee morale, and organizational climates through the study of theory and research.

481-2 Public Relations in Cases and Campaigns. Advanced course in selected case studies provided by the Public Relations Society of America and other sources. Student groups design actual or simulated public relations campaigns through the four steps of research, planning, communications, and evaluation. Prerequisite: 381 or consent of instructor.

490-1 to 6 Communication Practicum. A supervised experience utilizing communication skills in a professional or career setting. Emphasis on the development of applied performance skills in the following areas: (a) Public Relations, (b) Communication Studies, (c) Interpersonal Communication, (d) Oral Interpretation of Literature, (e) Forensic Activities, (f) Creative Dramatics, (g) Political Communication, (h) Organizational Communication, (i) Language Behavior, (j) Instructional Communication. May be repeated for credit. Undergraduates are limited to a total of six hours and graduate students to a total of three hours to be counted toward degree requirements. Prerequisite: consent of instructor and departmental adviser.

491-1 to 3 Independent Study in Communication. Readings, creative projects, or writing projects focusing on a theoretical study of communication. The independent study should normally be completed in one semester under the tutorial supervision of a faculty sponsor. Not for graduate credit. Prerequisite: twelve hours of speech, consent of instructor, and departmental adviser.

492-2 to 8 Workshop in Oral Interpretation. Summer offering concentrating in specialized areas of oral interpretation.

493-3 to 9 (3, 3, 3) Special Topics in Communication. An exploration of selected current topics in communication arts and studies. Topics vary and are announced in advance; both students and faculty suggest ideas. Students may repeat enrollment in the course, as the topic varies.

502-3 Seminar: Empirical Communications Research. Review and analysis of types of quantitative research and methods of data collection most relevant to the study of human communication. Prerequisite: 402 or consent of instructor.

503-3 Seminar: Non-Quantitative Research Methods. Course encompasses the critical analysis of selected field and phenomenological research methodologies. Analysis includes examination of the assumptions, methods of observation, data collection, and interpretation germane to each methodology.

510-3 to 6 (3, 3) Seminar: Rhetoric and Communication. An analysis of selected theories of communication, public address, and rhetoric. Emphasis on major contributors of historical or contemporary importance. Students may repeat enrollment to a total of six hours.

526-3 Seminar: Studies in Persuasion. The study of persuasion in social-political contexts. Exploration of contemporary research and selected theories in persuasion. Examination of philosophical-ethical questions related to persuasion. Readings, research, and discussions.

531-3 Seminar: Speech Education. Advanced study of selected problems in speech communication instruction. Analysis of research problems and methodologies in speech pedagogy research. Topics may vary from year to year. Prerequisite: consent of instructor.

539-3 Speech Communication at University Level. Analysis and practice of instructional methods. Focus on the development of instructional skills with specific applications to teaching the basic college speech communication course.

540-3 Seminar: Language Behavior. Problems in language behavior research. Location and development of research topics, formulation of proposals, methods of conducting language behavior research. Prerequisite: 440, 441, or 530.

561-3 to 6 (3, 3) Studies in Small Group Communication. Studies of group action, interaction, and leadership designed to apply small group theory and communication theory. Emphasis on the nature of group communication as exemplified in the laboratory model or the discussion/conference model. Students may repeat enrollment to a total of six hours.

562-3 Philosophy of Human Communication. (Same as Philosophy 562.) Advanced

study of the philosophical theories and models utilized in the human sciences to analyze, describe, and interpret communication as a paradigm of expression and perception. Emphasis on the nature of persons, consciousness, and social exchange as discussed by such contemporary schools of thought as existential phenomenology, semiology, behaviorism, structuralism, critical theory, hermeneutics, and conceptual analysis. Prerequisite: 461 or 462, or Philosophy 482 or 425 (same as Speech 465), or consent of instructor.

571-3 Theoretical Perspectives in Interpretation. A study of the philosophical trends in contemporary interpretation theory, with emphasis on their historical development. Prerequisite: nine hours of interpretation or consent of instructor.

572-3 Critical Perspectives in Interpretation. An examination of the development of critical trends and an exploration of the critical process as it functions in the oral performance of literature. Reproduction fees: maximum \$3.00. Prerequisite: nine hours of interpretation or consent of instructor.

574-3 to 6 (3, 3) Studies in Interpretation. An exploration of selected current topics in the field of oral interpretation. May be repeated for a total of six hours. Prerequisite: twelve hours of interpretation or consent of instructor.

593-1 to 3 Research Problems in Communications. Independent research study with a theoretical focus under the tutorial supervision of a member of the graduate faculty. Prerequisite: consent of instructor and departmental adviser.

598-0 Proseminar in Human Communication. An open forum offered each semester for the systematic discussion of contemporary research in the field of communication arts and studies. Specific content is determined by participating faculty and students. Topics will usually be related to current faculty research or dissertations in progress in the department.

599-1 to 6 Thesis. Minimum of three hours to be counted toward a master's degree.

600-1 to 36 (1 to 16 per semester) Dissertation. Minimum of 24 hours to be earned for the Doctor of Philosophy degree.

Speech Pathology and Audiology

401-3 Diagnostic Procedures in Speech Pathology. A general introductory course devoted to discussion of the role of the speech and hearing clinician as a differential diagnostician. Special emphasis is placed on correlating information obtained from the oral-peripheral examination, articulation and language evaluation, audiometric and case history information in constructing the initial evaluation report. Prerequisite: 200, 314.

407-2 Communicative Disorders: Cerebral Palsy. An introduction to cerebral palsy as a disorder, with an emphasis on etiology, problems, and approaches to therapy. Prerequisite: 205 314, or consent of instructor.

408-2 Communicative Disorders: Cleft Palate. An introduction to the ontology and teratology of cleft palate, problems of personal and social adjustments, and principles of therapy. Prerequisite: 205, 314, 318, or consent of instructor.

419-3 Communication Problems of the Deaf and Hard of Hearing. Objectives and techniques for the teaching of lip reading, speech conservation, and auditory training. Prerequisite: 316 or consent of instructor.

420-3 Basic Audiometric Evaluation. Principles and procedures of audiometric evaluation: pure-tone threshold testing; techniques and standards for clinical calibration of the audiometer; clinical masking procedures; materials and procedures for speech audiometry; hearing assessment of infants and children. Prerequisite: 316.

428-3 Speech and Language Disorders and the Classroom Teacher. Etiology and therapy of common speech defects. May be taken by all inservice teachers, seniors, and graduate students in education.

431-1 to 6 (1 to 3, 1 to 3) Biofeedback Communication. An investigation into the experimental approaches for the study of the phenomena of speech. Evoked potential and signal averaging techniques, psychophysiological methodology. Laboratory experience with various biofeedback instrumentation, EMG, EEG, temperature, ECG, etc. Open to nonmajors.

438-2 Problems of Communication and the Process of Aging. Reviews problems of communication related to the aging process and examines relevant diagnostic and therapeutic techniques. For non-majors only. Prerequisite: senior or graduate standing.

491-1 to 4 (1 to 2, 1 to 2) Individual Study. Activities involved shall be investigative, creative, or clinical in character. Must be arranged in advance with the instructor, with consent of the chairman. Prerequisite: consent of chairman.

494-1 to 2 Clinical Practice: Phonological Disorders. Supervised clinical practicum in articulation. Emphasis will be upon therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 302.

495-1 to 2 Clinical Practice: Language Disorders. Supervised clinical practicum in language. Emphasis will be upon therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 303.

- 496-1 to 2 Clinical Practice: Hearing Disorders.** Supervised clinical practicum in hearing disorders. Emphasis will be upon rudimentary clinical procedures in audiology. Prerequisite: 316, 419, or consent of instructor.
- 497-1 to 2 Clinical Practice: Hearing Diagnostics.** Supervised clinical practicum in hearing diagnostics. Emphasis will be upon diagnostic techniques and preparation of reports. Prerequisite: 316 and 420.
- 500-3 Research Design in Speech Pathology and Audiology.** Evaluation of the strategies and procedural tactics of behavioral research.
- 503-3 Laboratory Instrumentation in Speech Pathology and Audiology.** Physiological, acoustical, and biomedical recording, measurement and analysis of the speech encoder, decoder, and code for clinical and research applications. Prerequisite: 203 or consent of instructor.
- 505-3 Phonological Acquisition in Children.** An introductory discussion of the important linguistic, physiological, and acoustic variables which affect language production at the segmental and suprasegmental level of language; and a historical examination of the growth and development of distinctive feature systems from 1920 to the present. Concentration upon the mathematical, logical, physiological, and acoustic assumptions of the various matrices which have been developed. Prerequisite: consent of instructor.
- 507-3 Modern Techniques for the Syntactically Impaired.** Discussion of the application of current theoretical implications and research findings to the syntactically impaired. This course emphasizes diagnostic and therapeutic models applicable to language disorders. Opportunities for research and clinical experience with young children displaying developmental language problems will be provided. Required for master's students. Prerequisite: 303.
- 510-3 Stuttering: Behavior Assessment and Therapy.** Explores the assumptions underlying diagnosis and assessment. Procedures specific to the differential assessment of fluency failures are examined, evaluated, and related to therapeutic strategies and the tactics of behavior change. Prerequisite: 319, equivalent, or consent of instructor.
- 512-2 Voice Disorders.** An intensive study of the variables of air stream modulation resulting from impaired structures and function of head and neck. Prerequisite: 318 or equivalent.
- 517-3 Psycholinguistic Correlates of Verbal Impairment.** Students will explore current theories of syntactical and semantic acquisition with an emphasis upon applicability to clinical research and methodology. A historical review of linguistic theory will form the basis for discussion of research approaches in psycholinguistics. Students will review psycholinguistic research and devise paradigms appropriate for the study of verbal impairment. Elective course for master's and doctoral candidates. Prerequisite: 303, 507.
- 521-3 Advanced Audiology II.** Theory and practice in the application of middle ear impedance measures, electroencephalographic audiometry, electrodermal audiometry, and electronystagmography. Prerequisite: 316.
- 525-3 Amplification for the Hearing Impaired.** Clinical and laboratory methods of evaluating hearing aid performance; counseling of adult clients, parents, and teachers; professional relationship of audiologist to otologists and to hearing aid dealers; use and evaluation of individual and classroom auditory. Prerequisite: 316, 520.
- 526-3 Industrial and Community Hearing Conservation.** The nature of noise-induced hearing loss; methods of hearing protection; physiological and psychological effects of noise; methods of noise control and measurement; legal and economic aspects of community noise abatement; hearing conservation programs in industry and the community. Prerequisite: 316 or consent of instructor.
- 528-3 Seminar: Physio- and Psycho-Acoustics of the Ear.** Advanced study of the physiological responses of the middle and inner ear to the acoustic stimulus, in relation to major theories of auditory function; advanced study of behavioral responses to the major parameters of the acoustic stimulus; threshold sensitivity, loudness, pitch, localization, beats, and masking. Prerequisite: 316 or consent of instructor.
- 529-3 Seminar: Experimental Audiology.** Basic psychophysical methods, basic operating principles of electronic equipment, and the use of laboratory sound-production and measurement equipment will be presented. Students will design and perform model psychoacoustic experimentation. Prerequisite: 316, 528 or consent of instructor.
- 533-3 to 6 (3, 3) Seminar: Speech Science and Experimental Phonetics.** Special problems in speech communication science. Students may choose from a wide range of topics, such as speech acoustics, kinesthetic perception of speech; voice print identification; artificial and compressed speech, air flow dynamics, etc. Students may pursue one or more topics in depth. Special instruction on group or individual topics chosen. May be repeated to total of six hours with different content.
- 536-3 Seminar: Administration of Speech and Hearing Programs.** Program settings, organizational procedures, and professional interrelationships in adult speech and hearing therapy. Field trips to rehabilitation centers and related agencies.
- 540-3 Neuromuscular Disorders of Communication.** Will incorporate the study of the neurophysiology of the neuromotor system as well as the examination of information on

neural and muscular tissue. Differential diagnosis of dysarthria and verbal dyspraxia will be discussed. Therapeutic paradigms useful with neuromotor problems will be presented. Prerequisite: 314.

541-3 Neuropsychological Disorders of Communication. Will provide information relative to neurophysiology of psychological and other adaptive behaviors. Aphasia syndromes and appropriate diagnostic and clinical techniques will be reviewed. Prerequisite: 314.

544-3 Seminar: Phonology. An historical examination of the growth and development of distinctive feature systems from 1920 to the present. Concentrates on the mathematical, logical, physiological, and acoustic assumptions of the various matrices which have been developed. Prerequisite: consent of instructor.

548-3 Stuttering: Behavior Theory and Research. Examines modern learning theory approaches to fluency failure. The learning models dealt with are critically examined in relation to clinical and experimental data. Also reviews the research data on stuttering in relation to design, methodology, and technology. Discussions serve as the background for original investigations. Prerequisite: 319 or equivalent.

550-3 Seminar: Speech Pathology and Audiology. A special seminar of a predetermined area of speech pathology and audiology. Each student is expected to prepare and present papers on various aspects of the topic to the group. Liberal discussion will follow each paper. The seminar will be conducted by a faculty member specialized in the area of the topic selected. Prerequisite: consent of chairman.

590-1 to 4 (1 to 2 per semester) Readings in Speech Pathology and Audiology. Supervised and directed readings in specific areas of speech pathology and in audiology. Maximum of two hours counted toward master's degree. Prerequisite: consent of chairman.

593-1 to 3 Research Problems in Speech Pathology and Audiology. Individual work upon selected problems for research. Prerequisite: consent of chairman.

594-1 to 2 Clinical Practice: Voice Disorders. Supervised clinical practicum in voice disorders; emphasis upon therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 318 or equivalent.

595-1 to 2 Clinical Practice: Fluency Disorders. Supervised clinical practicum in fluency disorders; emphasis upon therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 510.

596-1 to 2 Clinical Practice: Cerebral Palsy. Supervised clinical practicum in cerebral palsy; emphasis upon therapy procedures, diagnostic techniques; and preparation of reports. Prerequisite: 540 and consent of instructor.

598-1 to 3 Internship in Speech Pathology and Audiology. Internship in a selected medical center, hospital clinic, community agency, or private clinic. The internship provides the student with an intensive, professional, clinical experience under supervision of qualified and certified resident staff members. Prerequisite: consent of chairman.

599-1 to 6 Thesis.

600-1 to 32 (1 to 16 per semester) Dissertation.

Theater

402-9 (3, 3, 3) Play Directing. (a) Introduction to directing. The history of the director; the evolution of the director into a position of predominance in modern theater hierarchy. The function of the director; an examination of theoretical viewpoints. Textual analysis; establishing the groundwork for the director's approach to production. Prerequisite: junior standing; 207 and 217; or consent of instructor. (b) The principles of play direction including play selection, analysis, and patterning of auditory and visual elements of production. Extensive scene work in class; direction of a full one-act play by the end of the semester. Prerequisite: 402a or consent of instructor. (c) Extension of analytical and production skills to include non-proscenium and "style" plays. Students will direct two full one-act plays. Prerequisite: 402b. Courses must be taken in a, b, c sequence.

404-3 Theater Management. Discussion of legal and financial aspects concerning the professional and community theaters of the United States. Consideration of and practice in managerial activities of an educational theater including administration, purchasing, and accounting practices, direct sales, publicity, promotion, and public relations.

409-3 High School Theater and Its Production Problems. Philosophy and analysis of basic needs of the high school theater. Consideration of all production elements with emphasis on play selection, casting, directing — artistic and technical.

410-3 Children's Theater. Study of methods and their practical application of introducing children to theatre and theatrical productions as an art form. Includes the writing of a short play for children. Recommended for majors in education programs.

411A-3 Playwriting — The One-Act Play. Principles of dramatic construction and practice in the writing of two one-act plays. Problems of adaptation are treated. Individual

conferences supplement the class discussion and analysis of student writing. Deserving plays have opportunity to be produced in the University Theater's Quarter-Night program for new plays. Prerequisite: one course in dramatic literature for non-majors and graduates; 311 for undergraduate theater and speech communication majors.

411B-3 Playwriting — The Full-Length Play. Principles of dramatic construction and practice in the writing of a full-length play (encompassing such varied types as the children's play, the historical pageant-drama, the outdoor epic-drama, the musical etc.) In special cases, students may elect to write three short plays. Prerequisite: 411A or consent of instructor; none except 311 for theater and speech communication undergraduate majors. Elective Pass/Fail.

412-6 (3, 3) Stage Design. The design of settings for the stage and other dramatic media. Prerequisite: 207. Elective Pass/Fail.

414-3 Costume Design. History of western costume from Greek to Renaissance and its adaptation to stage use. Theory and principles of theatrical costuming. Application of principles of design and color. Designs for single scenes.

415-3 Costume Design. History of costume, Renaissance through 19th Century. Style, fantasy, and the comic in costume design. Principles of dramatic theory and criticism as applied to costume design. Evaluation of research tools. Methods and procedures in designing costumes for a complete show. Prerequisite: 414.

416-3 Current Theories and Practices in the Teaching of Dance. (See Physical Education 416.)

417-2 Advanced Acting: Advanced Scene Study. Problems in style; scenes from children's plays, Shakespeare, restoration; the understanding and playing of more complicated subtexts as in Chekhov, Pinter, Beckett, et al; continued application of 217 and 317. Prerequisite: 217 and 317.

418-2 Technical Direction. Advanced course in the management of technical production. Emphasis is placed on scene shop organization, building materials, stage equipment, and the role of the technical director. Lecture two hours. Prerequisite: 211A or consent of instructor.

427-3 Experimental Theater. Experimentation in production techniques: directing, acting, and mixed media. Prerequisite: permission of instructor.

432-2 State Lighting. An in-depth investigation of stage lighting theory, design, and practice. Emphasis is placed on creative design projects for the varied dramatic styles and media. Lecture two hours. Laboratory one hour. Prerequisite: 211B or consent of instructor.

438-3 Contemporary Developments in Theater. Critical study of theory and practice. Emphasis is placed on creative arts. Discussion of acting, direction, production, architecture in the modern theater and its relation to future trends. The rise and development of the film, radio, and television as dramatic media. Prerequisite: theater history or consent of instructor.

444-1 to 6 Contemporary Dance Workshop.

454-6 (3, 3) American Theater. (a) The study of the development of American theater and its environment from colonial times to the present. Primary focus is given to non-musical or dramatic theater. (b) A study of the development of the American musical theater from preminstrels through contemporary music-drama.

489-3 to 6 Theater-Television Workshop. (See Radio-Television 489.)

500-2 Introduction to Research Methods. An introduction to the principles and methods of scientific, historical, critical, and projective research in theater. Prerequisite: graduate standing.

502-3 to 6 (3, 3) Advanced Directing. Emphasis on individual directing problems. Workshop study in directing period plays, verse plays, music dramas, and arena productions (each of which presents a specific directing challenge). Plus research into and application of theories and practices of innovative directors of both past and present. Students will direct a full-length two or three act play. May be repeated for a total of six credits only by permission of instructor. Prerequisite: consent of instructor.

503-2 to 6 (2 per topic per semester) Advanced Technical Problems. Solutions of problems presented by certain types of plays and modes of production. (a) Scene design. (b) State lighting and sound. (c) Costume design. Each section may be repeated more than once. Maximum of six hours to count toward the master's degree. Prerequisite: consent of department.

504-3 The Comic Theater. A study of comedic drama, theory, and criticism as applied to types of comedy with a focus on interpretation for the theater practitioner. Individual reports and scenes are assigned.

505-3 The Tragic Theater. An examination of tragic drama and criticism as related to the societies which produced such drama. Particular emphasis is placed upon the Athenian, Elizabethan, and modern theater.

511-3 Playwriting Workshop. A practical laboratory course in which playwriting students will have one or more original plays presented in staged readings or modified productions. Plays will be directed and, in part, acted by graduate directing/acting students also enrolled in the course. The workshop gathers a performance group for the presentation of the new plays. Student playwrights are expected to constantly improve their work before and after presentation, to attend rehearsals, to work closely with directors and actors. Plays will

be evaluated in critique sessions. Restricted to graduate playwriting and directing/acting students in the theater program. Prerequisite: graduate standing; theater major; 411a and b or 402b, 502, and 417; consent of instructor.

517-2 to 6 (2, 2, 2) Graduate Practicum in Acting. An advanced acting studio for graduate students which may be repeated for a total of six credits. Instruction in advanced rehearsal and performance problems. Prerequisite: 417 or equivalent and permission of instructor.

519-1 to 10 Theater Practicum. Practical experience in acting, directing, and associated work on campus, on area tours, and in summer stock. A maximum of ten hours may count toward a graduate program.

526-2 to 8 (2 per topic) Seminar in Theater Arts. Special problems of interest to advanced students. Subject is determined by the instructor. Areas: (a) Playwriting and Criticism. (b) Design and Production. (c) Acting and Directing. (d) History and Theory. Seminar in same area can be taken twice. Prerequisite: consent of department.

530-1 to 9 Research Problems in Theater. Individual work upon selected problems for research. No more than three hours may be taken in any given semester. Total number of hours (not to exceed nine hours) is subject to departmental approval.

550-2 to 6 (2 per topic) Topical Seminar. In-depth studies of topics of special interest to advanced students concerning individual or groups of playwrights, directors, designers, and their techniques and theories. Topic is determined in advance by the instructor. Prerequisite: consent of department.

599-1 to 6 Thesis. Minimum of three hours to be counted toward a master's degree.

600-1 to 36 (1 to 16 per semester) Dissertation. Minimum of 24 hours to be earned for the Doctor of Philosophy degree.

Vocational Education Studies

404-3 Analysis of Office Systems. An investigation of procedures and systems used in various types of offices, including a study of work flow, the processing of words, office personnel and their responsibilities, and the role of office functions in the total business society.

405-3 Office Management. Principles of management applied to office problems. Emphasis on the role of the office in business management; office organization; physical facilities and layout of office, office services, procedures, standards, and controls; records management.

407-2 Records Administration. Methods and systems of controlling, storing, retrieving, and disposing of records. Application of principles to such records as medical, legal, educational, industrial, and governmental.

410-2 Principles and Problems of Business Education. A study of the fundamentals of business education; its relation to business, to general education, and to vocational and career education; its history, current status, and trends; special emphasis on objectives and curriculum problems.

411-2 Teaching Classes Related to Experiential Business Education. For those who plan to become teacher-coordinators of vocational cooperative education programs. Emphasis is placed upon the construction and presentation of subject matter and materials used to teach basic marketable skills to secondary and post-secondary students. Prerequisite: 210.

412-2 Teaching Data Processing. Instructional methods and materials for and the evaluation of pupil progress in data processing. Prerequisite: 306 or Electronic Data Processing 101 or equivalent.

416-3 Teaching Marketing Skills. The development of instructional materials and methods used to teach consumer or industrial product pricing; merchandise selection and control; salesmanship, advertising, and promotional sales skills. Prerequisite: Marketing 363.

417-3 Teaching Distribution Skills. The development of instructional methods and materials to develop high-level skills in product development, market segmentation, transportation modes utilization, product handling, and merchandise storage. Prerequisite: Marketing 341 or 452.

418-3 Teaching Distributive Education. For those who plan to become teacher-coordinators of vocational cooperative or in-school distributive education programs. Emphasis on the planning facilities; selection and review of course content; preparation of instructional materials; organization and arrangement of units; related instruction; simulated, block, and project plans; and student evaluation. Prerequisite: Marketing 304 and 363.

419-2 to 12 Occupational Teaching Internship. Experience in working with special intern and post-high school technical training programs in approved centers. The teacher will follow the program of the supervisors of the primary specialization in both regular and extra class activities. Prerequisite: 395-10 hours, 490-3 hours.

428-3 Home Economics for Elementary Teachers. Identification and development of meaningful home economics related experiences appropriate for various levels of elementary

curriculum. Interpretation of current vocational education legislation and trends affecting elementary programs.

430-3 Teaching Concepts and Generalizations in Home Economics. Use of cooperative teacher-pupil planning to develop curriculum based on subject matter concepts and generalizations. Techniques for helping students to take part in planning, implementation of learning experiences, and evaluation. Provides practice in use of group process to plan for sequential learnings. Prerequisite: consent of instructor.

431-3 Demonstration and Laboratory Techniques in Home Economics Education. Practice in planning and carrying out instructional demonstrations in home economics for youth and adults. Use of audiovisual aids and hand-outs. Procedures for laboratory and guided practice to develop psychomotor skills. Attention given to TV presentations. Possible expense for materials to use in classroom demonstrations \$5.00 to \$8.00.

433-3 Women and the Politics of Education. Ways of organizing to implement legislation for social needs. How to have input into decisions which affect the educational community — reimbursement, grants, funding. The need, impact, and opportunity for careers in public service as these relate to individual, family, and societal needs. Field trips.

460-3 Vocational, Occupational, and Career Education Analysis and Curriculum Development. The first of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational, occupational, and career education. This course includes conducting job analysis, specifying objectives, and developing curriculum.

462-3 Vocational, Occupational, and Career Education Methods and Materials. The second of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational, occupational, and career education. This course is concerned with the unique instructional methods and material utilized in vocational, occupational, and career education.

464-3 Special Needs Learners in Vocational, Occupational, and Career Education Programs. Theoretical and applied concepts in teaching special needs learners. Affective aspects of learning are emphasized. Curricula and teaching materials are examined and prepared. Field trips.

466-3 Principles and Philosophies of Vocational, Occupational, and Career Education. Nature and purpose of vocational, occupational, and career education, their relationships and differences, and the place of each in preparing people for the world of work.

470-3 Introduction to Cooperative Vocational, Occupational, and Career Education. Investigation of competencies required of cooperative education instructors and coordinators.

472-3 Post-Secondary Cooperative Vocational, Occupational, and Career Education. Operational procedures and development of instructional processes for coop programs. Work experience required. Field trips. Transportation expense for work and field trips.

474-3 Individualized Instruction in Vocational, Occupational, and Career Education. Study of the theory, characteristics, appropriateness, and evaluation techniques of individualized programs. Will include a review of the current state of individualized instruction in vocational, occupational, and career education.

478-3 Contemporary Principles and Management of IA Programs. Study of contemporary approaches to the teaching of industrial arts including objective philosophies, advantages, and disadvantages; shop or laboratory design and organization; and the management of programs in shops or laboratories. Not for graduate credit. Prerequisite: junior standing.

480-3 Teaching Consumer Education. Principles of teaching consumer education in all settings. Emphasis on meeting state requirements for teachers of consumer education in Illinois. Selection and study of course content, preparation of instructional materials; organization and arrangement of units of study; and planning and evaluation program.

484-3 Adult Vocational and Technical Education. A study of adult vocational and technical education as offered in a variety of educational settings. Major topics include organization, funding, teaching, student characteristics, and evaluation. Prerequisite: consent of adviser.

486-3 Post-Secondary Vocational-Technical Teaching. A study of contemporary approaches to the teaching of vocational education in post-secondary educational institutions. The course includes a review of practices in area vocational centers, vocational-technical institutes, community and junior colleges, colleges, and universities.

488-3 Vocational Student Placement and Follow-Up. The organization and operation of a comprehensive school-based placement system for secondary and post secondary vocational, technical, and adult education students. Utilization of resources with emphasis on planning, implementing, and evaluating the placement effort.

490-2 to 4 Vocational, Occupational, and Career Education Readings. Supervised reading for qualified students. (a) Agriculture education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor and coordinator of program.

491-1 to 5 Advanced Occupational Skills. Modern occupational practice in selected

fields. For experienced professionals seeking advanced techniques in specialized areas of occupational education. (a) Agricultural education (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: intermediate level study in the specialty.

494-1 to 4 Workshop in Vocational, Occupational, and Career Education. Study of current issues of interest to vocational, occupational, and career education teachers, supervisors, and administrators in the field. Emphasis of each workshop will be identified in each workshop announcement. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education.

495-2 to 12 Vocational, Occupational, and Career Education Teaching Internship. Experience in working with special intern and post-high school vocational, occupational, and career education training programs in approved centers. The teacher will follow the program of the supervisor of the primary specialization in both regular and extra class activities. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: 395—10 hours, 490—3 hours.

497-2 to 6 Vocational, Occupational, and Career Education Practicum. Applications of vocational, occupational, and career education skills and knowledge. Cooperative arrangements with corporations and professional agencies provide opportunity to study under specialists. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: 20 hours in specialty.

498-2 to 5 Special Problems in Vocational, Occupational and Career Education. Assistance and guidance in the investigation and solution of vocational, occupational, and career education problems. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor and coordinator.

511-2 Improvement of Instruction in Consumer and Basic Business Subjects. Designed for the experienced teacher who is interested in the study of curriculum and teaching problems in the consumer education and basic business areas. Deals with teaching procedures, instructional materials, tests and evaluation, and organization of teaching units and projects.

512-2 Improvement of Instruction in Secretarial Subjects. Designed for the experienced teacher who is interested in the study of curriculum and teaching problems in secretarial subjects. Deals with teaching procedures, instructional materials, tests, and evaluation. Prerequisite: 311 or 312 or 313.

518-3 Home Economics Programs in the Schools. Curriculum development in vocational home economics is the focus. Units in family life education, consumer-homemaking, and occupational programs are developed by students for use in their professional responsibilities. Offered alternate years.

520-3 Trends and Issues in Home Economics Education. Analysis and appraisal of current trends, problems, and issues in the field. Attention is given to implications for teachers.

521-3 Advanced Methods of Teaching Home Economics. Recent trends in methodology based on research and experimentation. Attention given to methods which promote cognitive, affective, and psychomotor learnings. Preparation of materials for special interests of students. Offered alternate years.

522-3 Supervision of Home Economics. Nature, function, and techniques of supervision at all levels. Emphasis given to supervision of student teachers.

561-3 Research in Vocational, Occupational, and Career Education. Basic research methods and techniques in the design, investigation, and reporting of research studies relating to vocational, occupational, and career education.

562-3 Legislation and Organization in Vocational, Occupational, and Career Education. Historical and contemporary thought and practice regarding federal and state legislation for vocational, occupational, and career education in sundry institutions. Legislators are used as resource persons. Required for supervisors.

564-3 Evaluation of Vocational, Occupational, and Career Education Programs. Student, faculty, and program evaluation. Accountability and measurement of stated learning outcomes. Assessing psychomotor behavior in addition to the more cognitive and affective domains. Development and construction of pertinent and effective evaluation instruments.

566-3 Administration and Supervision of Vocational, Occupational, and Career Education Programs. Nature, function, and techniques of administration and supervision of vocational, occupations, and career education programs at all levels.

568-3 Planning Vocational, Occupational, and Career Education Facilities. Principles and practices of planning classrooms and laboratories for vocational, occupational, and career education programs. How to work with administrators, staff, and paid professionals to assure judicious location and design of facilities.

570-3 Cooperative Vocational, Occupational, and Career Education Programs. Cooperative programs as they are developed in America, and especially in Illinois, are presented. Coordinators' duties and responsibilities along with the operation of

vocational, occupational, and career education cooperative programs are featured. Prerequisite: 470 or 472 or previous professional experience.

572-3 Post-Secondary Cooperative Vocational, Occupational, and Career Education Programs. Managing specialized occupational related cooperative programs, including work-study, internships, and clinical experiences in diverse post-secondary occupational education settings. Prerequisite: 470 or 472 or previous professional experience.

574-3 Vocational, Occupational, and Career Education Information. The role of instructional and supervisory vocational, occupational, and career education personnel in the total occupational information system. Kindergarten to adult.

576-6 (3, 3) Policy Implementation and Supervision of Vocational, Occupational, and Career Education Programs. Planning, implementing, and controlling local education agency components of state and federal occupational programs. (a) Objective program planning, leadership, communications. (b) Management information systems, financial decisions, staffing patterns.

578-3 Vocational, Occupational, and Career Education in Diverse Settings. Similarities and dissimilarities of vocational, occupational, and career education programs in public/private, civilian/military, union/management, and other settings. Expectation of instructional and supervisory personnel. Professional contributions of post-secondary teachers.

580-3 Characteristics of Vocational, Occupational, and Career Education Clientele. Familiarization with the characteristics and programming needs of clientele served by vocational, occupational, and career education programs.

582-3 Vocational, Occupational, and Career Education Planning and Policy Development. Survey of models and techniques for vocational, occupational, and career education planning and policy development at local, state, and national levels. Examination of research design and data collection procedures.

584-3 Articulated Vocational, Occupational, and Career Education Programs. Identifying, compiling, and organizing data necessary to the development and preparation of vocational, occupational, and career education related learning experiences.

586-3 Methods and Materials for Adult Vocational, Occupational, and Career Education Programs. Philosophy of adult education; current organizational patterns of adult programs; unit planning, methods, techniques, and resources.

590-1 to 4 Readings in Vocational, Occupational, and Career Education. Supervised readings in selected subjects (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor.

591-1 to 9 New Developments in Vocational, Occupational, and Career Education Programs. Recent developments and trends in vocational, occupational, and career education presented by recognized authorities for discussion and review. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education.

592-2 to 6 Recent Research in Vocational, Occupational, and Career Education. Review of selected research in vocational, occupational, and career education, governmental, business, and industrial agencies. Emphasis on action research and use of research findings. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Offered alternate years.

593-2 to 4 Individualized Research in Vocational, Occupational, and Career Education. Selection and investigation of an appropriate problem or issue; use of relevant sources and techniques; collection, analysis, evaluation, and interpretation of data and the writing of a report of the investigation. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor.

594-1 to 4 Research Seminar in Vocational, Occupational and Career Education. Presentation of prospectus outlines, research projects, problems for research, progress reports of research by graduate students and faculty. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor.

595-1 to 16 Vocational, Occupational, and Career Education Professional Internship. Supervised professional experience in appropriate vocational or pre-vocational education settings. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education.

597-1 to 4 Vocational, Occupational, and Career Education Practicum in Supervision. Experience in using a variety of supervision techniques at various levels and areas both on campus and off. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor.

598-2 to 6 Special Investigations in Vocational, Occupational, and Career Education. Selection and investigation of a problem: use of relevant sources and techniques; collection and analysis, evaluation, and interpretation of data, and the writing of a report of the investigation for students whose particular needs are not met by existing classes. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Occupational education. Prerequisite: consent of instructor.

599-2 to 6 Thesis.

600-1 to 36 Dissertation.

Zoology

Students enrolled in zoology courses may incur field trip or laboratory expenses of \$5.00 to \$25.00.

402-3 Natural History of Invertebrates. Introduction to ecology, intraspecies communication and interspecies relationships of invertebrate animals. Recommended for teacher preparation programs. One lecture and two 2-hour laboratories per week. Cost of \$10 to \$20 may be incurred by student. Offered Fall term. Prerequisite: 120a or 220a.

403-3 Natural History of Vertebrates. Observation, identification, and life histories. Designed for teachers. Not for students specializing in vertebrate zoology. Cost of \$10 to \$20 may be incurred by student. One lecture and one 4-hour laboratory. Offered Spring term. Prerequisite: 120b or 220b.

406-3 Protozoology. Taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods for culture and study. One lecture and two 2-hour laboratories per week. Cost of \$5.00 may be incurred by student. Offered Fall term. Prerequisite: 120a or 220a.

407-4 Parasitology. Principles, collection, identification, morphology, life histories, and control measures. Two lectures and two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Spring term. Prerequisite: 120a or 220a.

408-3 Herpetology. Taxonomic groups, identification, morphology, and natural history, of amphibians and reptiles. One lecture and two 2-hour laboratories per week. Cost of \$5.00 may be incurred by student. Offered Fall term. Prerequisite: 120b or 220b.

409-4 Vertebrate Histology. Microscopic structure of organs and tissues with emphasis on mammalian material. Two lectures and two 2-hour laboratories per week. Cost of \$5.00 may be incurred by student. Offered Spring term. Prerequisite: 10 semester hours of biological science including vertebrate biology.

410-6 (3, 3) Vertebrate Paleontology. History of vertebrate animals in terms of their morphological change, geological succession, and ecological relationships. (a) Fossil fishes, amphibians, reptiles, and birds. (b) Fossil mammals. Two lectures and one 2-hour laboratory per week. Cost of \$5.00 may be incurred by student. Offered (a) Fall; (b) Spring terms. Prerequisite: 120b or 220b.

413-6 (3, 3) The Invertebrates. (a) Structure, phylogeny, and habitats of the lower invertebrates through lophophorates and deuterostomes except echinoderms. (b) Structure, phylogeny, and habitats of the higher invertebrates including echinoderms, molluscs, annelids and arthropods. Three 2-hour laboratories per week. Cost of \$5 may be incurred by the student. Offered Spring term, (a) alternate even years; (b) alternate odd years. Cost of \$5 may be incurred by student. Prerequisite: 220a.

414-4 Freshwater Invertebrates. Taxonomic groups, identification, distribution, and habitats of the North American freshwater invertebrate fauna. Two lectures, two 2-hour laboratories per week. Offered Fall term. Cost of \$19 to \$20 may be incurred by student for field trips. Prerequisite: 120a or 220A.

415-3 Limnology. Lakes and inland waters; the organisms living in them, and the factors affecting those organisms. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of \$15 to \$20 may be incurred by student. Fall term. Prerequisite: 120a or 220a.

421-4 Histological Techniques. Methods of preparing animal tissue for microscopic study and learn theories of staining and histochemistry. One lecture and two 3-hour laboratories per week. Cost of \$15 may be incurred by student. Offered Fall term. Prerequisite: 10 semester hours of biological science.

426-3 Comparative Endocrinology. Comparison of mechanisms influencing hormone release, hormone biosynthesis, and the effects of hormones on target tissues. Includes ablation and histology of glands and chemical and bio-assays with vertebrates and invertebrates. Two lectures and one 2-hour laboratory per week. Cost of \$5 to \$10 may be incurred by student. Offered Spring term. Prerequisite: consent of instructor.

441-3 Emergence of Order in Biological Systems. From the molecular to any desired higher level of biological organization: systematic, cybernetic, evolutionary, and thermodynamic principles. Two lecture and one 2-hour laboratory per week. Cost of \$5.00 may be incurred by student. Offered Fall term. Prerequisite: consent of instructor.

460-2 Upland Game Birds. Identification, life history, ecology, and management. One lecture and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to \$25 per student. Prerequisite: 220b or consent of instructor.

461-3 Mammalogy. Taxonomic groups, identification, and natural history of mammals. One hour lecture and two 2-hour laboratories per week. Cost of \$10 may be incurred by student. Offered Fall term. Prerequisite: 120b or 220b.

462-2 Waterfowl. Identification, life history, ecology, and management. One lecture and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to \$25 per student. Prerequisite: 220b or consent of instructor.

- 465-3 Ichthyology.** Taxonomic groups, identification, and natural history of fishes. Two lectures and one 2-hour laboratory per week. Cost of \$10 may be incurred by student. Offered Spring term. Prerequisite: 120b or 220b.
- 466-3 Fish Management.** Sampling, age and growth, dynamics, habitat improvement, manipulation of fish populations and management of freshwater and marine fish stock. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of field trips up to \$25 per student. Offered Fall term. Prerequisite: 10 hours of biological science.
- 467-3 Ornithology.** Classification and recognition of birds and the study of their songs, nests, migratory habits, and other behavior. One lecture and two 2-hour laboratories per week. Cost of field trips may be up to \$20 per student. Offered Spring term. Prerequisite: 120b or 220b.
- 468-4 (2, 2) Wildlife Biology.** Basic concepts and techniques employed in managing wildlife populations and their associated ecosystems. A basic ecology course is desirable as background for this course. (a) Principles. Two 1-hour lectures per week. (b) Techniques. One 4-hour laboratory session per week, three or four of which will be field trips on Saturdays. Cost of field trips up to \$25 per student may be incurred. Offered Fall term. Prerequisite: 10 semester hours of biological science; plus for zoology majors, concurrent enrollment in 468b.
- 471-3 Entomology.** Structure, classification, and life histories of insects. One lecture and two 2-hour laboratories per week. Offered Fall term. Cost up to \$20 may be incurred by student for field trips. Prerequisite: 120a or 220a.
- 473-3 Aquatic Entomology.** Structure, classification, and biology of aquatic insects. One lecture and two 2-hour laboratories per week. Cost up to \$20 may be incurred by student. Offered Spring term. Prerequisite: 120a or 220a.
- 478-3 Animal Behavior.** Biological basis of the behavior of animals. Two lectures and one 2-hour laboratory per week. Prerequisite: one year or biological science or permission of instructor.
- 479-2 to 5 Concepts in Animal Behavior.** Terms and concepts relevant to the study of animal behavior. Guided self-instructional format, with two 1-hour and one 3-hour period scheduled weekly, primarily as question-answer and evaluation sessions. Offered Spring term. Prerequisite: one year of biological science or permission of instructor.
- 480-2 to 5 Research Methods in Animal Behavior.** Skills relevant to doing research in animal behavior. Guided self-instructional format, with two 3-hour periods scheduled weekly, primarily as question-answer and evaluation sessions. Cost of up to \$25 may be incurred by student. Offered Fall term. Prerequisite: at least two hours of *B* work in 478 or 479, or permission of instructor.
- 482-1 Zoology Seminar for Seniors.** Classical and contemporary topics in zoology. This requirement will normally be met by participating in the regular meeting of the seminar. In lieu of seminar attendance and with consent of departmental chairman, the student may elect to prepare and give an oral presentation at a special seminar on an agreed upon research topic. One meeting per week. Offered Fall, Spring, Summer terms. Not for graduate credit. Prerequisite: senior standing or 24 hours of life science completed. Mandatory Pass/Fail.
- 496-2 to 4 Zoology Field Studies.** A trip of four to eight weeks to acquaint students with animals in various environments and/or with methods of field study, collection, and preservation. Cost of \$25 may be incurred by the student. Offered Fall, Spring, Summer terms. Prerequisite: consent of department.
- 508-2 Helminthology.** Identification, structure, physiology, and life history of parasitic worms. Two lectures per week. Prerequisite: consent of instructor.
- 512-2 Animal Geography.** Considers the effects of historical and ecological factors on animal distribution. Two meetings per week. Prerequisite: consent of instructor.
- 514-3 Advanced Entomology.** Morphology, physiology, systematics, and distribution of insects. One lecture and two two-hour laboratories. Cost of \$5.00 may be incurred by student. Prerequisite: 471.
- 520-3 Advanced Invertebrates.** The nature and life of invertebrate animals with emphasis on comparative form, function, behavior, and occurrence. Three two-hour meetings per week. Prerequisite: consent of instructor.
- 521-3 Advanced Limnology.** The physical, chemical, and biological factors affecting organisms in streams. Cost of \$10.00 may be incurred by student. Two lectures per week.
- 525-3 Cytology.** (Same as Botany 525.) An analysis of the subcellular and cytochemical organization of the cell. Structural-functional aspects of organelles, membranes, and other cellular components, their relationship to the metabolic nucleus, substructural organization of hereditary material and subcellular aspects of mitosis and meiosis are emphasized. Two lectures and one laboratory per week.
- 540-3 Factors in Animal Reproduction.** Genetic and physiological factors in determination, differentiation, and modification of sex in animals. Three lectures a week. Prerequisite: consent of instructor.
- 542-3 Osteology.** Modification of the vertebrate skeleton as a result of growth, functional adaptation, and phylogenetic relationship. Two lectures and two one-hour laboratories per week. Prerequisite: consent of instructor.
- 561-3 Game Mammals.** Natural history and management. Two lectures and one two-hour

laboratory per week. Cost of \$5.00 may be incurred by student. Prerequisite: consent of instructor.

566-3 Fish Culture. Production of game, food, and bait fishes. Design of facilities, chemical and biological variables, spawning techniques, diseases and nutrition. Two lectures per week and one four-hour laboratory alternate weeks. Cost of \$5.00 may be incurred by student. Prerequisite: consent of instructor.

567-1 to 4 Techniques in Fish Culture and Fish Management. Course organized as modules. One credit for completion of 2 modules. Register any semester, one year to complete elected number of modules. Written report and examination required for each module. Cost of \$100 may be incurred by the student. Prerequisite: 466, or 566, or their equivalent.

573-3 Physiological Ecology. The role of physiological, morphological, and behavioral adaptations and adjustments in the ecology of vertebrate organisms. Two hours of lecture and one two-hour laboratory. Cost of \$5.00 may be incurred by student. Prerequisite: Biology 307 or equivalent and consent of instructor.

577-2 Population Ecology. Principles of population dynamics as related to animals. Two lectures per week. Prerequisite: consent of instructor.

578-2 Population Genetics. Genetic structure of populations, factors causing changes, and principles governing rate and direction of change. Two lectures per week. Prerequisite: consent of instructor.

580-3 Advanced Taxonomy. The theory and practice of taxonomy, classification, and nomenclature. Three meetings per week, two hours each. Prerequisite: consent of instructor.

581-2 Zoological Literature. Diversity and functions of zoological literature, scientific writing, and the publication process. Two lectures per week. Prerequisite: graduate status in a biological science.

582-1 to 4 (1, 1, 1, 1) Graduate Zoology Seminars. Special topics in zoology. Consult department for each semester's topic. One meeting per week. Prerequisite: consent of instructor and department.

583-1 Teaching Zoology in College. Methods, practices, and objectives in teaching zoology at the college/university level. Designed as part of the apprenticeship program for preparation of college teachers. Required of departmental teaching assistants. One hour lecture per week. Graded *S/U* only. Prerequisite: graduate status in a biological science.

585-27 (3, 3, 3, 3, 3, 3, 3, 3, 3) Seminar. Advanced study of special topics in zoology. (a) Seminar in Animal Behavior. (b) Seminar in Neurobiology of Metazoa. Survey of the cytology and histology of nerve cells, and the sheath elements separately as they appear in organized tissues of metazoa. (c) Seminar in Ecosystems. (d) Seminar in Wetland Ecology. (e) Seminar in Wildlife Ecology: impact of land use. (g) Seminar in Parasitology. (h) Seminar on the Amphibia. (l) Seminar in Aquaculture. (m) Seminar in Fish Management. Three meetings per week. Prerequisite: consent of instructor.

593-1 to 8 Individual Research. Investigation in zoology other than those for theses. Only three hours may be credited toward a degree. Some costs may be borne by the student. Graded *S/U* only.

599-1 to 8 Research and Thesis. Thesis for master's degree. Some cost may be borne by student. Graded *S/U* only. Prerequisite: consent of instructor.

600-1 to 32 Research and Dissertation. Research and dissertation for Doctor of Philosophy degree. Some cost may be borne by student. Graded *S/U* only. Prerequisite: consent of instructor.

4 Faculty

Graduate instruction at Southern Illinois University at Carbondale is the responsibility of the graduate faculty. Although the graduate faculty is not organized into departments, its members are normally affiliated with specific disciplines. The faculty listed below are arranged in terms of their departmental affiliations. The college or school in which the department is located is also noted.

The first of the two dates listed with the name of a faculty member indicates the year in which the highest degree was earned; the second date indicates the year when the person first became a faculty member at Southern Illinois University at Carbondale.

Preceding the graduate faculty is a list of faculty members and students elected to the Graduate Council for the year 1976-1977.

Members of the Graduate Council for 1977-1978

HARRY AMMON, Professor, History
CLIFTON ANDERSEN, Professor, Marketing
W. C. ASHBY, Professor, Botany
JOHN BAKER, Associate Professor, Political Science
JAN BARTELSON, Student, English
JOHN BOE, Associate Professor, Music
KENNETH DANHOF, Associate Professor, Computer Science
THOMAS EYNON, Professor, Sociology
ROBERT GRIFFIN, Associate Professor, English
F. LEE GRISMORE, Associate Professor, Electrical Sciences & Systems Engineering
DOROTHY HIGGINBOTHAM, Professor, Speech Communication
DONNA HOLMES, Student, Rehabilitation
HELMUT LIEDLOFF, Professor, Foreign Languages & Literatures
JERRY LORENZ, Associate Professor, Rehabilitation
JOHN McGUIRE, Student, Higher Education
HARRY MILLER, Professor, Educational Leadership
CHRISTIAN MOE, Professor, Theater
HOWARD OLSON, Professor, Animal Industries
JOHN POHLMANN, Assistant Professor, Guidance and Educational Psychology
CARROLL RILEY, Professor, Anthropology
FRED SLOAN, Professor, Curriculum, Instruction and Media
HERBERT SNYDER, Professor, Mathematics
HOWARD STAINS, Professor, Zoology
RALPH SWICK, Professor, Accounting

Accountancy (College of Business and Administration)

BARRON, MARY NOEL, Associate Professor, C.P.A., M.B.A., University of Michigan, 1946; 1948.
BURGER, CLIFFORD R., Professor, C.P.A., M.S., Indiana State University, 1947; 1958.
ERIKSEN, DOUGLAS C., Associate Professor, C.P.A., C.M.A., Ph.D., University of Missouri, 1968; 1969.
GALLEGLY, ROBERT L., Associate Professor, *Emeritus*, A.M. University of Illinois, 1947; 1946.
GLICK, JOHN R., Assistant Professor, D.B.A., University of Colorado, 1975; 1974.

OGDEN, SUSIE, Associate Professor, *Emerita*, A.M. University of Illinois, 1931; 1931.
 SCHMIDLEIN, EDWARD J., JR., Professor, C.P.A., Ph.D., New York University, 1953; 1959.
 SWICK, RALPH D., Professor, C.P.A., D.B.A., Indiana University, 1954; 1955.
 TUCKER, MARVIN W., Associate Professor, Ph.D., University of Alabama, 1966; 1966.
 WHITE JACKSON, Professor and *Chairman*, Ph.D., Louisiana State Univ., 1964; 1977.
 WOELFEL, CHARLES J., Professor, C.P.A., Ph.D., University of Texas, 1957; 1969
 WRIGHT, ROLAND M., Professor, C.P.A., Ph.D., University of Iowa, 1962; 1966.

Administrative Sciences (College of Business and Administration)

BATEMAN, DAVID N., Associate Professor, Ph.D., Southern Illinois University, 1970; 1965.
 BEDWELL, R. RALPH, Associate Professor, *Emeritus*, Ph.D., Southern Illinois University, 1969; 1954.
 BUSSOM, ROBERT S., Assistant Professor and *Chairman*, Ph.D., Ohio State University, 1973; 1969.
 FOHR, JOHN M., Professor, Ed.D., Michigan State University, 1959; 1962.
 HUNT, JAMES G., Professor, Ph.D., University of Illinois, 1966; 1966.
 JAUCH, LAWRENCE, Associate Professor, Ph.D., University of Missouri, 1973; 1976
 LARSON, LARS L., Associate Professor, Ph.D., University of Illinois, 1971; 1971.
 OSBORN, RICHARD N., Associate Professor, D.B.A., Kent State University, 1971; 1971.
 REEVES, GARY, Assistant Professor, D.Sc., Washington University, 1973; 1976.
 REHN, HENRY J., Professor, *Emeritus*, Ph.D., University of Chicago, 1930; 1945.
 SCOTT, JOHN W., Professor, *Emeritus*, Ph.D., University of Chicago, 1930; 1947.
 VICARS, WILLIAM M., Associate Professor, Ph.D., Southern Illinois University, 1969; 1968.
 WESTBERG, WILLIAM C., Professor, Ph.D., Pennsylvania State University, 1948; 1952.
 WILSON, HAROLD K., Assistant Professor, D.B.A., University of Colorado, 1972; 1972.

Agricultural Industries (School of Agriculture)

BENTON, RALPH A., Professor, *Emeritus*, Ph.D., University of Illinois, 1955; 1956.
 DOERR, WILLIAM A., Assistant Professor, Ph.D., Southern Illinois University, 1973; 1965.
 HERR, WILLIAM MCD., Professor, Ph.D., Cornell University, 1954; 1957.
 KEEPPER, WENDELL E., Professor, *Emeritus*, Ph.D., Cornell University, 1938; 1950.
 LEGACY, JAMES, Assistant Professor, Ph.D., Cornell University, 1976; 1977.
 LYBECKER, DONALD W., Associate Professor, Ph.D., Iowa State University, 1970; 1970.
 PATERSON, JOHN J., Associate Professor, *Emeritus*, M.S., University of Saskatchewan, 1943; 1957.
 SOLVERSON, LYLE, Associate Professor, Ph.D., University of Wisconsin, 1967; 1966.
 STITT, THOMAS R., Professor, Ph.D., Ohio State University, 1967; 1967.
 WILLS, WALTER J., Professor, Ph.D., University of Illinois, 1952; 1956.
 WOLFF, ROBERT L., Associate Professor, Ph.D., Louisiana State University, 1971; 1972.
 WOOD, EUGENE S., Professor, and *Chairman*, Ed.D., University of Missouri, 1958; 1949.

Animal Industries (School of Agriculture)

GOODMAN, BILL L., Professor, Ph.D., Ohio State University, 1959; 1958.
 HAUSLER, CARL L., Associate Professor, Ph.D., Purdue University, 1970; 1970.
 HINNERS, SCOTT W., Professor, Ph.D., *Emeritus*, University of Illinois, 1958; 1951.
 HODSON, HAROLD H., JR., Professor, and *Chairman*, Ph.D., Iowa State University, 1965; 1971
 KAMMLADE, W. G., JR., Associate Professor, Ph.D., University of Illinois, 1951; 1954.
 KROENING, GILBERT H., Professor, Ph.D., Cornell University, 1965; 1969.
 LEE, D. DIXON, JR., Associate Professor, Ph.D., North Carolina State University, 1970; 1970.
 MALES, JAMES R., Assistant Professor, Ph.D., Ohio State University, 1973; 1974.
 OLSON, HOWARD H., Professor, Ph.D., University of Minnesota, 1952; 1954.
 REED, ALEX, Professor, *Emeritus*, Ph.D., University of Illinois, 1953; 1946.
 STRACK, LOUIS E., Associate Professor, D.V.M., University of Illinois, 1961; 1968.

Anthropology (College of Liberal Arts)

BENDER, M. LIONEL, Associate Professor, Ph.D., University of Texas at Austin, 1968; 1971.
 BRAUN, DAVID P., Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1977; 1977.
 BUTLER, BRIAN M., Archaeologist, Ph.D., University of Michigan, 1977; 1977.
 COOK, EDWIN A., Associate Professor, Ph.D., Yale University, 1967; 1971.
 DARK, PHILIP J. C., Professor, Ph.D., Yale University, 1954; 1960.
 EULER, ROBERT, Adjunct Professor, Ph.D., University of New Mexico 1958; 1976.
 FALK, DEAN, Assistant Professor, Ph.D., University of Michigan, 1976; 1977.

GUMERMAN, GEORGE J., Professor, and *Chairman*, Ph.D., University of Arizona, 1969; 1973.
 HANDLER, JEROME S., Professor, Ph.D., Brandeis University, 1965; 1962.
 KELLEY, J. CHARLES, Professor, *Emeritus*, Ph.D., Harvard University, 1948; 1950.
 MacLACHLAN, BRUCE B., Associate Professor, Ph.D., University of Chicago, 1962; 1964.
 MARING, ESTER G., Assistant Professor, Ph.D., Indiana University, 1969; 1965.
 MARING, JOEL M., Associate Professor, Ph.D., Indiana University, 1967; 1963.
 MULLER, JON D., Associate Professor, Ph.D., Harvard University, 1967; 1966.
 RANDS, ROBERT L., Professor, Ph.D., Columbia University, 1952; 1966.
 RILEY, CARROLL L., Professor, Ph.D., University of New Mexico, 1952; 1955.
 TAYLOR, WALTER W., Professor, *Emeritus*, Ph.D., Harvard University, 1943; 1958.

Art (College of Communications and Fine Arts)

ABRAHAMSON, ROY E., Associate Professor, Ed.D., Columbia University, 1965; 1965.
 ADDINGTON, ALDON M., Assistant Professor M.F.A., Cranebrook Academy of Art, 1966; 1967.
 BARONE, VIOLET TROVILLION, Assistant Professor, *Emerita*, M.A., George Peabody College for Teachers, 1955; 1964.
 BERNSTEIN, LAWRENCE A., Associate Professor, M.F.A., Cranebrook Academy of Art, 1953; 1962.
 BOYSEN, BILL H., Associate Professor, M.F.A., University of Wisconsin, 1966; 1966.
 DELLER, HARRIS, Lecturer, M.F.A., Cranbrook Academy of Art, 1973; 1975.
 FEHM, SHERWOOD A. JR., Associate Professor, Ph.D., Yale University, 1971; 1977.
 FELDMAN, JOEL B., Assistant Professor, M.F.A., Indiana University, 1967; 1973.
 FINK, HERBERT L., Professor, M.F.A., Yale University, 1958; 1961.
 GREENFIELD, SYLVIA R., Assistant Professor, M.F.A., University of Colorado, 1967; 1968.
 JOHNSON, EVERT A., Lecturer, M.A., University of Iowa, 1954; 1966.
 KINGTON, L. BRENT, Professor, M.F.A., Cranebrook Academy of Art, 1961; 1961.
 LINTAULT, M. JOAN, Associate Professor, M.F.A., Southern Illinois University, 1962; 1973.
 LITTLEFIELD, F. LEE, Assistant Professor, M.A., University of New Mexico, 1968; 1968.
 MAVIGLIANO, GEORGE J., Assistant Professor, M.A., Northern Illinois University, 1967; 1970.
 ONKEN, MICHAEL O., Assistant Professor, M.A., Northern Illinois University, 1966; 1968.
 PAULSON, ROBERT L., Assistant Professor, M.F.A., University of Wisconsin, 1967; 1967.
 ROACH, LULA D., Associate Professor, *Emerita*, M.A., Washington University, 1953; 1930.
 SULLIVAN, JAMES E., Associate Professor, M.A., University of California at Los Angeles, 1965; 1969.
 SULLIVAN, MILTON F., Professor and *Director*, M.A., Columbia University, 1951; 1952.
 WOOD, DAN D., Assistant Professor, M.A., University of Iowa, 1968; 1968.

Botany (College of Science)

ASHBY, WILLIAM C., Professor, Ph.D., University of Chicago, 1950; 1960.
 MATTEN, LAWRENCE C., Professor, Ph.D., Cornell University, 1965; 1965.
 MOHLENBROCK, ROBERT H., Professor and *Chairman*, Ph.D., Washington University, 1957; 1957.
 OLAH, LADISLAO V., Professor, *Emeritus*, Ph.D., Stephen Tisza University, Hungary, 1934; 1959.
 PAPPELIS, ARISTOTEL J., Professor, Ph.D., Iowa State University, 1957; 1960.
 ROBERTSON, PHILIP A., Assistant Professor, Ph.D., Colorado State University, 1968; 1970.
 SCHMID, WALTER E., Professor, Ph.D., University of Wisconsin, 1961; 1962.
 STOTLER, BARBARA C., Associate Professor, Ph.D., University of Cincinnati, 1968; 1970.
 STOTLER, RAYMOND E., Associate Professor, Ph.D., University of Cincinnati, 1968; 1969.
 SUNDBERG, WALTER J., Associate Professor, Ph.D., University of California, 1971; 1972.
 TINDALL, DONALD R., Associate Professor, Ph.D., University of Louisville, 1966; 1966.
 UGENT, DONALD, Associate Professor, Ph.D., University of Wisconsin, 1966; 1968.
 VERDUIN, JACOB, Professor, Ph.D., Iowa State University, 1947; 1964.
 VOIGT, JOHN W., Professor, Ph.D., University of Nebraska, 1950; 1950.
 WELCH, WALTER B., Professor, *Emeritus*, Ph.D., University of Chicago, 1937; 1939.
 YOPP, JOHN H., Associate Professor, Ph.D., University of Louisville, 1969; 1970.

Center for the Study of Crime, Delinquency, and Corrections (College of Human Resources)

ANDERSON, DENNIS, Assistant Professor, Ed.D., University of Nebraska, 1970; 1970.
 BENNETT, LAWRENCE, Associate Professor and *Director*, Ph.D., Claremont Graduate School, 1968; 1976.
 COUGHLIN, JOSEPH S., Professor, M.S.W., University of Wisconsin, 1954; 1973.

DREHER, ROBERT H., Associate Professor, J.D., University of Illinois, 1940; 1967.
 JOHNSON, ELMER H., Professor, Ph.D., University of Wisconsin, 1950; 1966.
 KLYMAN, FRED, Associate Professor, Ed.D., Oklahoma State University, 1973; 1976.
 MATTHEWS, CHARLES V., Associate Professor, M.A., University of Kansas City, 1951; 1962.
 RICH, VERNON, Associate Professor, Ph.D., Michigan State University, 1971; 1972.
 WILSON, KENNETH G., Assistant Professor, Ph.D., Kansas State University, 1973; 1973.
 WILSON, Nanci K., Assistant Professor, Ph.D., University of Tennessee, 1972; 1972.

Chemistry and Biochemistry (College of Science)

ARNOLD, RICHARD T., Professor, Ph.D., University of Illinois, 1937; 1969.
 BAILEY, JAMES, Assistant Professor, Ph.D., University of North Carolina, 1973; 1975.
 BEMILLER, JAMES N., Professor, Ph.D., Purdue University, 1959; 1961.
 BEYLER, ROGER E., Professor, Ph.D., University of Illinois, 1949; 1959.
 BOLEN D. WAYNE, Associate Professor, Ph.D., Florida State University, 1969; 1971.
 BROWN, GEORGE E., Professor, *Emeritus*, Ph.D., Iowa State University, 1941; 1962.
 CASKEY, ALBERT L., Associate Professor, Ph.D., Iowa State University, 1961; 1964.
 COX, JAMES A., Associate Professor, Ph.D., University of Illinois, 1967; 1969.
 DUNAWAY, GEORGE, Assistant Professor, Ph.D., University of Oklahoma, 1970; 1975.
 EMPTAGE, MICHAEL R., Assistant Professor, Ph.D., Harvard University, 1965; 1968.
 GUYON, JOHN C., Professor, Ph.D., Purdue University, 1961; 1974.
 HADLER, HERBERT I., Professor, Ph.D., University of Wisconsin, 1952; 1966.
 HADLEY, ELBERT H., Professor, Ph.D., Duke University, 1940; 1947.
 HALL, J. HERBERT, Professor, Ph.D., University of Michigan, 1959; 1962.
 HARGRAVE, PAUL A., Assistant Professor, Ph.D., University of Minnesota, 1970; 1973.
 HINCKLEY, CONRAD C., Professor, Ph.D., University of Texas, 1964; 1966.
 KOSTER, DAVID F., Associate Professor, Ph.D., Texas A & M University, 1965; 1967.
 MEYERS, CAL Y., Professor, Ph.D., University of Illinois, 1951; 1964.
 NECKERS, J. W., Professor, *Emeritus*, Ph.D., University of Illinois, 1927; 1927.
 SCHMIT, JOSEPH G., Assistant Professor, Ph.D., Purdue University, 1971; 1976.
 SCHMULBACH, C. DAVID, Professor and *Chairman*, Ph.D., University of Illinois, 1958; 1965.
 SLOCUM, DONALD W., Professor, Ph.D., New York University, 1963; 1965.
 SMITH, GERARD V., Professor, Ph.D., University of Arkansas, 1959; 1966.
 SUNG, MICHAEL T., Associate Professor, Ph.D., University of Wisconsin, 1968; 1971.
 TRIMBLE, RUSSELL F., Professor, Ph.D., Massachusetts Institute of Technology, 1951; 1954.
 TYRRELL, JAMES, Associate Professor, Ph.D., University of Glasgow, 1963; 1967.
 VAN LENTE, KENNETH A., Professor, *Emeritus*, Ph.D., University of Michigan, 1931; 1931.
 WOTIZ, JOHN H., Professor, Ph.D., Ohio State University, 1948; 1967.

Cinema and Photography (College of Communications and Fine Arts)

BLUMENBERG, RICHARD M., Associate Professor, Ph.D., Ohio University, 1969; 1970.
 BUKALSKI, PETER J., Associate Professor and *Chairman*, Ph.D., Ohio State University, 1975; 1975.
 COCKING, LOREN D., Assistant Professor, M.A., Ohio State University, 1969; 1976.
 COVELL, MICHAEL D., Assistant Professor, M.F.A., Ohio University, 1975; 1975.
 GILMORE, DAVID A., Associate Professor, M.F.A., Ohio University, 1969; 1969.
 HARPOLE, CHARLES H., Assistant Professor, Ph.D., New York University, 1976; 1977.
 HORRELL, C. WILLIAM, Professor, Ed.D., Indiana University, 1955; 1949.
 MERCER, JOHN, Professor, Ph.D., University of Nebraska, 1952; 1958.
 PAINE, FRANK, Associate Professor, B.S., Iowa State University, 1950; 1960.
 SWEDLUND, CHARLES A., Professor, M.S., Illinois Institute of Technology, 1961; 1971.

Comprehensive Planning and Design (College of Human Resources)

BERRY, THELMA HUFF, Professor, *Emerita*, Ed.D., Columbia University, 1963; 1966.
 ELLNER, JACK R., Professor, Ph.D., New York University, 1969; 1971.
 FETTER, WILLIAM A., Research Associate, B.F.A., University of Illinois, 1952; 1970.
 FRIEND, SHIRLEY E., Associate Professor, Ed.D., University of Arkansas, 1969; 1972.
 GROSKOWSKY, HAROLD, Lecturer, Certificate, IIT, Institute of Design, Chicago, 1953; 1960.
 KULA, ELSA, Lecturer, B.F.A., Pratt Institute, Brooklyn, New York ITT, Institute of Design, Chicago, 1942; 1957.
 LOUGEAY, PAUL J., Associate Professor, Registered Architect, M.S., Southern Illinois University, 1973; 1952.
 PADGETT, ROSE, Professor, *Emerita*, Ph.D., Purdue University, 1955; 1962.
 PERK, HARRY F. W., Lecturer, A.B., University of California at Los Angeles, 1951; 1964.

PRATT, DAVID J., Lecturer, Certificate, University of Chicago and ITT, Institute of Design, Chicago, 1939; 1957.
 ROAN, HERBERT, Lecturer and Instructor, Certificate, Cooper Union, 1938; 1957.
 SCHOEN, ALAN HUGH, Professor, Ph.D., University of Illinois, 1958; 1973.
 ST. JOHN, WAYNE L., Associate Professor and *Director*, Ph.D., University of Oregon, 1954; 1975.
 WHITESEL, RITTA, Associate Professor, Emerita, M.A., Columbia University, 1941; 1955.

Computer Science (College of Liberal Arts)

BATEMAN, BARRY L., Adjunct Professor, Ph.D., Texas A & M University, 1970; 1976.
 DANHOF, KENNETH J., Associate Professor and *Chairman*, Ph.D., Purdue University, 1969; 1969.
 GUHA, RATAN K., Associate Professor, Ph.D., University of Texas at Austin, 1970; 1970.
 MARK, ABRAHAM M., Professor, Ph.D., Cornell University, 1947; 1950.
 WRIGHT, WILLIAM E., Assistant Professor, D.Sc., Washington University, 1972; 1970.

Curriculum, Instruction, and Media (College of Education)

AIKMAN, ARTHUR L., Professor, Ph.D., Southern Illinois University, 1965; 1964.
 ALSTON, MELVIN O., Professor, *Emeritus*, Ed.D., Columbia University, 1945; 1970.
 BAUNER, RUTH E., Associate Professor, M.S., University of Illinois, 1956; 1956.
 BEDIENT, DOUGLAS, Assistant Professor, Ph.D., Southern Illinois University, 1971; 1969.
 BOYKIN, ARSENE O., Associate Professor, Ed.D., University of Illinois, 1964; 1972.
 BRADFIELD, LUTHER E., Professor, Ed.D., Indiana University, 1953; 1955.
 BROD, ERNEST E., Professor, *Emeritus*, Ed.D., University of Northern Colorado, 1953; 1951.
 BUTTS, GORDON K., Professor, Ed.D., Indiana University, 1956; 1950.
 CASEY, JOHN P., Professor, Ed.D., Indiana University, 1963; 1964.
 COX, DOROTHY, Assistant Professor, Ph.D., Southern Illinois University, 1976; 1965.
 DALE, DORIS C., Associate Professor, D.L.S., Columbia University, 1968; 1969.
 DIXON, BILLY G., Associate Professor, Ph.D., Southern Illinois University, 1967; 1961.
 FLETCHER, KATHLEEN G., Associate Professor, *Emerita*, M.S., University of Illinois, 1947; 1955.
 FILGOR, ROSS J., Professor, *Emeritus*, Ph.D., Michigan State University, 1953; 1940.
 HILL, MARGARET K., Professor, Ed.D., Boston University, 1948; 1965.
 HUNGERFORD, HAROLD R., Professor, Ph.D., Southern Illinois University, 1970; 1965.
 JACKSON, MICHAEL, Associate Professor, Ed.D., University of Florida, 1971; 1971.
 KLASEK, CHARLES B., Associate Professor, Ph.D., University of Nebraska, 1971; 1971.
 LAMB, MORRIS L., Associate Professor, Ed.D., University of Oklahoma, 1970; 1970.
 LEE, J. MURRAY, Professor, *Emeritus*, Ph.D., Columbia University, 1934; 1958.
 LINDBERG, DORMALEE H., Associate Professor, Ed.D., University of Missouri, Columbia, 1969; 1969.
 LONG, RUTH A., Associate Professor, Ed.D., Indiana University, 1972; 1970.
 MALONE, WILLIS E., Professor, *Emeritus*, Ph.D., Ohio State University, 1950; 1939.
 MATTHIAS, MARGARET, Assistant Professor, Ph.D., Southern Illinois University, 1972; 1969.
 MEES, JOHN D., Professor, *Emeritus*, Ed.D., Indiana University, 1950; 1946.
 MORPURGO, JANE S., Assistant Professor, Ph.D., University of Illinois, 1975; 1974.
 PAIGE, DONALD D., Professor and *Chairman*, Ed.D., Indiana University, 1966; 1966.
 QUISENBERRY, JAMES D., Assistant Professor, Ph.D., Indiana University, 1972; 1971.
 QUISENBERRY, NANCY L., Associate Professor, Ed.D., Indiana University, 1971; 1971.
 RANDOLPH, VICTOR, Professor, *Emeritus*, Ph.D., George Peabody College for Teachers, 1942; 1933.
 SAMFORD, CLARENCE, Professor, *Emeritus*, Ph.D., New York University, 1940; 1951.
 SEIFERTH, BERNIECE B., Associate Professor, Ed.D., University of Missouri, 1955; 1955.
 SHEPHERD, TERRY R., Associate Professor, Ph.D., University of Illinois, 1971; 1971.
 SLOAN, FRED A., Professor, Ed.D., George Peabody College for Teachers, 1959; 1968.
 SPIGLE, IRVING S., Associate Professor, Ed.D., Indiana University, 1955; 1970.
 STEHR, JEAN, Associate Professor, M.A., Texas Women's University, 1945; 1944.
 STEINRUCK, YVONNE, Assistant Professor, Ph.D., University of Toledo, 1975; 1975.
 STEPHENS, CLARENCE, Professor, *Emeritus*, Ed.D., Indiana University, 1955; 1952.
 TOMERA, AUDREY, Associate Professor, Ph.D., Southern Illinois University, 1973; 1969.
 WENDT, PAUL R., Professor, *Emeritus*, Ph.D., University of Minnesota, 1948; 1955.
 WINSOR, DONALD, Associate Professor, Ed.D., University of Florida, 1961; 1965.

Economics (College of Liberal Arts)

ADAMS, DONALD R., JR., Associate Professor, Ph.D., University of Pennsylvania, 1967; 1968.

BOHI, DOUGLAS R., Professor, Ph.D., Washington State University, 1967; 1970.
 EDELMAN, MILTON T., Professor, Ph.D., University of Illinois, 1951; 1950.
 ELLIS, ROBERT J., JR., Associate Professor, Ph.D., University of Virginia, 1966; 1962.
 FORAN, TERRY G., Associate Professor and *Chairman*, Ph.D., Pennsylvania State University, 1970; 1969.
 FRYMAN, RICHARD F., Associate Professor, Ph.D., University of Illinois, 1967; 1966.
 HAND, GEORGE H., Professor, *Emeritus*, Ph.D., Princeton University, 1939; 1952.
 HICKMAN, C. ADDISON, Professor, Vandever Chair of Economics, Ph.D., University of Iowa, 1942; 1960.
 LAYER, ROBERT G., Professor, Ph.D., Harvard University, 1952; 1955.
 MORRISON, VERNON G., Professor, *Emeritus*, Ph.D., University of Nebraska, 1961; 1947.
 MYERS, JOHN G., Assistant Professor, Ph.D., Columbia University, 1961; 1977.
 SHIELDS, MICHAEL P., Assistant Professor, Ph.D., University of Utah, 1975; 1975.
 STALON, CHARLES G., Associate Professor, Ph.D., Purdue University, 1966; 1963.
 VOGEL, ROBERT C., Associate Professor, Ph.D., Stanford University, 1967; 1972.
 WIEGAND, G. C., Professor, *Emeritus*, Ph.D., Northwestern University, 1950; 1956.

Educational Leadership (College of Education)

ARMISTEAD, FRED J., Professor, *Emeritus*, Ph.D., University of California, 1960; 1961.
 BACH, JACOB O., Professor, Ph.D., University of Wisconsin, 1951; 1951.
 BRACEWELL, GEORGE, Professor, *Emeritus*, Ed.D., Washington University, 1952; 1931.
 BRAMMELL, PARIS R., Professor, *Emeritus*, Ph.D., University of Washington, 1930; 1960.
 BRYANT, ROYE R., Professor, *Emeritus*, Ed.D., Washington University, 1952; 1948.
 BUSER, ROBERT L., Professor, Ed.D., Indiana University, 1966; 1967.
 CHILDS, JOHN L., Professor, *Emeritus*, Ph.D., Teachers College, Columbia University, 1931; 1961.
 CLARK, ELMER J., Professor, Ph.D., University of Michigan, 1949; 1964.
 DENNIS, LAWRENCE J., Professor, Ph.D., Southern Illinois University, 1968; 1968.
 DUFF, GRACE, Assistant Professor, Ph.D., Southern Illinois University, 1970; 1973.
 EATON, WILLIAM E., Associate Professor, Ph.D., Washington University, 1971; 1971.
 EWING, PARMER L., Professor, *Emeritus*, Ed.D., New York University, 1950; 1965.
 FISHBACK, WOODSON W., Associate Professor, *Emeritus*, Ph.D., University of Chicago, 1947; 1948.
 HALL, JAMES H., Associate Professor, *Emeritus*, Ed.D., George Washington University, 1950; 1952.
 JACOBS, ROBERT, Professor, *Emeritus*, Ed.D., Wayne State University, 1949; 1962.
 KAISER, DALE E., Professor, Ph.D., University of Illinois, 1963; 1966.
 LAWLER, EUGENE S., Professor, *Emeritus*, Ph.D., Columbia University, 1932; 1961.
 LEAN, ARTHUR E., Professor, *Emeritus*, Ph.D., University of Michigan, 1948; 1957.
 MATTHIAS, WILLIAM, Associate Professor, Ed.D., University of Illinois, 1964; 1971.
 MCKENZIE, WILLIAM R., Professor, Ed.D., University of Denver, 1952; 1964.
 MERWIN, BRUCE W., Professor, *Emeritus*, Ph.D., University of Kansas, 1929; 1927.
 MILLER, HARRY G., Professor, and *Chairman*, Ed.D., University of Nebraska, 1970; 1970.
 MOORE, MALVIN E., Professor, Ed.D., George Peabody College for Teachers, 1959; 1968.
 NEAL, CHARLES D., Professor, *Emeritus*, Ed.D., Indiana University, 1948; 1948.
 PARKER, JAMES C., Associate Professor, Ed.D., University of Tennessee, 1971; 1971.
 RIPPLE, KENNETH E., Associate Professor, Ed.D., Michigan State University, 1968; 1974.
 SASSE, EDWARD B., Professor, Ph.D., University of Wisconsin, 1966; 1966.
 SHELTON, WILLIAM E., Associate Professor, Ph.D., University of Chicago, 1950; 1951.
 STUCK, DEAN, Professor, Ph.D., Iowa State University, 1968; 1968.
 VERDUIN, JOHN R., JR., Professor, Ph.D., Michigan State University, 1962; 1967.
 WARREN, F. G., Professor, *Emeritus*, A.M., University of Chicago, 1928; 1913.
 WOHLWEND, HERBERT W., Associate Professor, Ph.D., Southern Illinois University, 1964; 1958.

Electric Sciences and Systems Engineering (School of Engineering and Technology)

DODD, CURTIS W., Associate Professor, Ph.D., Arizona State University, 1967; 1967.
 DUNNING, E. LEON, Professor, Ph.D., University of Houston, 1967; 1957.
 FIESTE, VERNOLD K., Associate Professor, Ph.D., University of Missouri at Columbia, 1966; 1966.
 GRISMORE, F. LEE, JR., Associate Professor, Ph.D., Georgia Institute of Technology, 1970; 1969.
 LIT, ALFRED, Professor, Ph.D., Columbia University, 1948; 1961.
 MCCALLA, THOMAS, JR., Associate Professor, Ph.D., Case Western Reserve University, 1969; 1969.
 RAWLINGS, CHARLES A., Assistant Professor, Ph.D., Southern Illinois University, 1974; 1964.

SMITH, JAMES G., Professor and *Chairman*, Ph.D., University of Missouri at Rolla, 1967; 1966.

Engineering Mechanics and Materials (School of Engineering and Technology)

AL-RUBAYI, NAJIM, Professor, Ph.D., University of Wisconsin, 1966; 1966.

BROWER, WILLIAM E., JR., Assistant Professor, Ph.D., Massachusetts Institute of Technology, 1969; 1976.

CHUGH, YOGINDER, Associate Professor, Ph.D., Pennsylvania State University, 1971; 1977.

DAVIS, PHILIP, Professor and *Chairman*, Ph.D., University of Michigan, 1963; 1964.

EVERS, JAMES, Associate Professor, Ph.D., University of Alabama, 1969; 1969.

NOWACKI, C. RAYMOND, Associate Professor, Ph.D., University of Illinois, 1965; 1963.

ORTHWEIN, WILLIAM, Professor, Ph.D., University of Michigan, 1959; 1965.

SAMI, SEDAT, Professor, Ph.D., University of Iowa, 1966; 1966.

English (College of Liberal Arts)

APPLEBY, BRUCE C., Associate Professor, Ph.D., University of Iowa, 1967; 1967.

BARBOUR, FRANCES, Associate Professor, *Emerita*, M.A., Washington University, 1920; 1925.

BENZIGER, JAMES G., Professor, Ph.D., Princeton University, 1941; 1950.

BOYLE, TED EUGENE, Professor, Ph.D., University of Nebraska, 1962; 1963.

BROWN, WILLIAM J., Associate Professor, Ph.D., Duke University, 1966; 1966.

COHN, ALAN MARTIN, Professor, M.S., University of Illinois, 1955; 1955.

COLEMAN, E. C., Professor, *Emeritus*, Ph.D., University of Illinois, 1936; 1946.

DONOW, HERBERT, Associate Professor, Ph.D., University of Iowa, 1966; 1966.

FRIEND, JEWELL, Associate Professor, Ph.D., Southern Illinois University, 1970; 1967.

GOODIN, GEORGE, Associate Professor, Ph.D., University of Illinois, 1962; 1966.

GRIFFIN, ROBERT P., Associate Professor, Ph.D., University of Connecticut, 1965; 1965.

HARPER, CLIFFORD D., Associate Professor, Ph.D., St. Louis University, 1972; 1973.

HATTON, THOMAS J., Associate Professor, Ph.D., University of Nebraska, 1966; 1965.

HILLEGAS, MARK, Professor, Ph.D., Columbia University, 1957; 1965.

HOWELL, JOHN M., Associate Professor, Ph.D., Tulane University, 1963; 1963.

HURLEY, PAUL, Professor, Ph.D., Duke University, 1962; 1965.

KRAPPE, EDITH, Associate Professor, *Emerita*, Ph.D., University of Pennsylvania, 1953; 1929.

LAWSON, RICHARD A., Associate Professor, Ph.D., Tulane University, 1966; 1963.

LITTLE, JUDY RUTH, Associate Professor, Ph.D., University of Nebraska, 1969; 1969.

MOORE, HARRY T., Professor and Research Professor, *Emeritus*, Ph.D., Boston University 1951; 1963.

MOSS, SIDNEY P., Professor, Ph.D., University of Illinois, 1954; 1964.

PARTLOW, ROBERT B., JR., Professor, and *Chairman*, Ph.D., Harvard University, 1955; 1957.

PETERSON, RICHARD F., Associate Professor, Ph.D., Kent State University, 1969; 1969.

PIPER, HENRY DAN, Professor, Ph.D., University of Pennsylvania, 1950; 1962.

RAINBOW, RAYMOND, Associate Professor, Ph.D., University of Chicago, 1959; 1949.

RAIZIS, M. BYRON, Professor, Ph.D., New York University, 1966; 1966.

RUDNICK, HANS, Associate Professor, Ph.D., University of Freiburg, Germany, 1966; 1966.

SCHONHORN, MANUEL, Professor, Ph.D., University of Pennsylvania, 1963; 1968.

SCHULTZ, JOHN HOWARD, Professor, *Emeritus*, Ph.D., Harvard University, 1940; 1967.

SIMEONE, WILLIAM E., Professor, Ph.D., University of Pennsylvania, 1950; 1950.

STIBITZ, E. EARLE, Professor, Ph.D., University of Michigan, 1951; 1952.

TAYLOR, LARRY E., Associate Professor, Ph.D., University of Oklahoma, 1969; 1968.

TENNEY, CHARLES D., University Professor, *Emeritus*, Ph.D., University of Oregon, 1931; 1931.

VIETH, DAVID MUENCH, Professor, Ph.D., Yale University, 1953; 1965.

WEBB, HOWARD W., JR., Professor, Ph.D., University of Iowa, 1953; 1956.

Finance (College of Business and Administration)

ELSAID, HUSSEIN H., Associate Professor, Ph.D., University of Illinois, 1964; 1967.

MATHER, IQBAL, Associate Professor, Ph.D., University of Cincinnati, 1974; 1977.

SPRECHER, C. RONALD, Associate Professor, Ph.D., University of Illinois, 1969; 1970.

TYLER, R. STANLEY, Associate Professor, J.D., University of Illinois, 1952; 1970.

VAUGHN, DONALD E., Professor, and *Chairman*, Ph.D., University of Texas, 1961; 1970.

WATERS, GOLA E., Associate Professor, J.D., University of Iowa, 1957; Ph.D., Southern Illinois University, 1970; 1965.

Foreign Languages and Literature (College of Liberal Arts)

- BORK, ALBERT W., Professor, *Emeritus*, Doctor en Letras, National University of Mexico, 1944; 1958.
- CANFIELD, D. LINCOLN, Visiting Professor, *Emeritus*, Ph.D., Columbia University, 1934; 1970.
- DAVIS, J. CARY, Professor, *Emeritus*, Ph.D., University of Chicago, 1936; 1930.
- FRENCH, HOWARD, Associate Professor, *Emeritus*, Ph.D., Indiana University, 1952; 1962.
- GOBERT, DAVID L., Professor, Ph.D., University of Iowa, 1960; 1965.
- HARTMAN, STEVEN LEE, Assistant Professor, Ph.D., University of Wisconsin, 1971; 1971.
- HARTWIG, HELLMUT A., Professor, *Emeritus*, Ph.D., University of Illinois, 1943; 1948.
- KILKER, JAMES, Associate Professor, Ph.D., University of Missouri at Columbia, 1961; 1967.
- KUPCEK, JOSEPH, Professor, Ph.D., Comenius University, Bratislava, Czechoslovakia, 1943; 1962.
- LIEDLOFF, HELMUT, Professor, Ph.D., Phillips University, Germany, 1956; 1959.
- McBRIDE, CHARLES, Associate Professor, Ph.D., University of Texas, 1968; 1972.
- MEINHARDT, WARREN, Associate Professor, Ph.D., University of California at Berkeley, 1965; 1969.
- O'BRIEN, JOAN, Associate Professor, Ph.D., Fordham University, 1961; 1969.
- O'MEARA, MAURICE, Associate Professor, Ph.D., University of Iowa, 1967; 1969.
- ORECHWA, OLGA, Assistant Professor, Ph.D., Ukrainian Free University, Germany, 1970; 1967.
- PEACOCK, VERA L., Professor, *Emerita*, Ph.D., Cornell University, 1930; 1930.
- SMITH, MADELEINE M., Associate Professor, *Emerita*, Ph.D., Yale University, 1952; 1929.
- SPECK, CHARLES, Assistant Professor, Laurea in Diritto Canonico, Pontifical Lateran University, Italy, 1963; 1970.
- TAI, JAMES, Associate Professor, Ph.D., Indiana University, 1970; 1970.
- TIMPE, EUGENE F., Professor and *Chairman*, Ph.D., University of Southern California, 1960; 1972.
- WOODBIDGE, HENSLEY, Professor, Ph.D., University of Illinois, 1950; 1965.

Forestry (School of Agriculture)

- AUBERTIN, GERLAD, Associate Professor, Ph.D., Pennsylvania State University, 1964; 1976.
- BUDELSKY, CARL A., Assistant Professor, Ph.D., University of Arizona 1969; 1967.
- BURDE, JOHN H., Assistant Professor, Ph.D., University of Arizona, 1974; 1974.
- CHILMAN, KENNETH C., Associate Professor, Ph.D., University of Michigan, 1972; 1973.
- FRALISH, JAMES S., Associate Professor, Ph.D., University of Wisconsin, 1970; 1969.
- GAFFNEY, GERALD R., Assistant Professor, Ph.D., Southern Illinois University, 1970; 1969.
- KUNG, FAN H., Associate Professor, Ph.D., Michigan State University, 1968; 1970.
- McCURDY, DWIGHT R., Professor, Ph.D., Ohio State University, 1964; 1965.
- MYERS, CHARLES C., Associate Professor, Ph.D., Purdue University, 1966; 1973.
- ROTH, PAUL L., Associate Professor, Ph.D., Kansas State University, 1968; 1967.
- SPALT, HOWARD A., Associate Professor and *Chairman*, D For., Yale University, 1959; 1975.
- WEAVER, GEORGE T., Associate Professor, Ph.D., University of Tennessee, 1972; 1970.
- YAMBERT, PAUL A., Professor, Ph.D., University of Michigan, 1961; 1969.

Geography (College of Liberal Arts)

- AREY, DAVID G., Associate Professor, Ph.D., Clark University, 1969; 1971.
- BAUMANN, DUANE D., Associate Professor, Ph.D., Clark University, 1968; 1967.
- BEAZLEY, RONALD I., Professor, Ph.D., Purdue University, 1954; 1959.
- CHRISTENSEN, DAVID E., Professor, Ph.D., University of Chicago, 1956; 1961.
- CUNNINGHAM, FLOYD, Professor, *Emeritus*, Ph.D., Clark University, 1930; 1947.
- DWORKIN, DANIEL M., Assistant Professor, Ph.D., Clark University, 1974; 1976.
- HORSLEY, A. DOYNE, Assistant Professor, Ph.D., Southern Illinois University, 1974; 1968.
- HORTON, FRANK E., Professor, Ph.D., Northwestern University, 1966; 1975.
- IRWIN, DANIEL R., Associate Professor, Ph.D., Syracuse University, 1972; 1959.
- JONES, DAVID L., Professor, Ph.D., Pennsylvania State University, 1960; 1965.
- KRAUSE, ANNEMARIE, Associate Professor, *Emerita*, Ph.D., University of Chicago, 1952; 1930.
- LIEBER, STANLEY R., Assistant Professor, Ph.D., University of Iowa, 1974; 1975.
- SHARPE, DAVID M., Associate Professor and *Chairman*, Ph.D., Southern Illinois University, 1968; 1966.

Geology (College of Science)

- COLE, REX D., Assistant Professor, Ph.D., University of Utah, 1975; 1975.

DUTCHER, RUSSELL R., Professor, and *Chairman*, Ph.D., The Pennsylvania State University, 1960; 1970.
 FANG, JEN-HO, Professor, Ph.D., Pennsylvania State University, 1961; 1964.
 FRAUNFELTER, GEORGE H., Professor, Ph.D., University of Missouri, Columbia, 1964; 1965.
 HARRIS, STANLEY, E., JR., Professor, Ph.D., University of Iowa, 1947; 1949.
 HOOD, WILLIAM C., Professor, Ph.D., University of Montana, 1964; 1968.
 MANSFIELD, CHARLES, Assistant Professor, Ph.D., Stanford University, 1972; 1975.
 RITTER, DALE F., Professor, Ph.D., Princeton University, 1964; 1972.
 ROBINSON, PAUL D., Assistant Professor, M.S., Southern Illinois University, 1963; 1967.
 SEXTON, JOHN L., Assistant Professor, Ph.D., Indiana University, 1974; 1975.
 UTGAARD, JOHN E., Professor, Ph.D., Indiana University, 1963; 1965.
 ZIMMERMAN, JAY, JR., Associate Professor, Ph.D., Princeton University, 1968; 1973.

Guidance and Educational Psychology (College of Education)

ALTEKRUSE, MICHAEL D., Professor, Ed.D., Indiana University, 1967; 1967.
 AMBLE, BRUCE ROY, Professor, Ph.D., University of Iowa, 1963; 1965.
 BARDO, HAROLD R., Associate Professor, Ph.D., Southern Illinois University, 1972; 1968.
 BEGGS, DONALD L., Professor, Ph.D., University of Iowa, 1966; 1966.
 BRADLEY, RICHARD W., Professor, Ph.D., University of Wisconsin, 1968; 1968.
 CODY, JOHN J., Professor, Ph.D., University of Wisconsin, 1961; 1965.
 DEICHMANN, JOHN W., Associate Professor, Ph.D., St. Louis University, 1969, 1969.
 DENZEL, HARRY, Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1971; 1964.
 DeWEESE, HAROLD L., Professor, Ed.D., University of Illinois, 1959; 1959.
 ELMORE, PATRICIA B., Associate Professor, Ph.D., Southern Illinois University, 1970; 1967.
 EVANS, JOHN REAVES, Associate Professor, Ph.D., Southern Illinois University, 1968; 1970.
 GRENFELL, JOHN E., Professor, Ed.D., Oregon State University, 1966; 1966.
 IDEUS, HARVEY S., Associate Professor, Ed.D., University of Wyoming, 1965, 1973.
 KELLY, FRANCIS J., Professor, Ph.D., University of Texas, 1963; 1965.
 LEITNER, DENNIS, Assistant Professor, Ph.D., University of Maryland, 1975; 1974.
 LEWIS ERNEST, Associate Professor and *Chairman*, Ph.D., Southern Illinois University, 1971; 1970.
 LINDSEY, JEFFERSON F., Professor, Ed.D., University of Texas, 1962; 1967.
 MEEK, CLINTON ROSCOE, Professor, Ph.D., George Peabody College for Teachers, 1954; 1957.
 MILLER, WILLIAM G., Associate Professor, Ph.D., University of Iowa, 1967; 1971.
 MOUW, JOHN T., Associate Professor, Ed.D., University of South Dakota, 1968; 1968.
 PHELPS, WILLIAM, Professor, *Emeritus*, Ed.D., University of Northern Colorado, 1943; 1949.
 POHLMANN, JOHN T., Associate Professor, Ph.D., Southern Illinois University, 1972; 1971.
 RENZABLIA, GUY A., Professor, Ph.D., University of Minnesota, 1952; 1955.
 SNOWMAN, JACK, Assistant Professor, Ph.D., Indiana University, 1975; 1974.
 VIECELL, LOUIS, Assistant Professor, M.S.Ed., Southern Illinois University, 1959; 1958.
 WHITE, GORDON, Assistant Professor, Ph.D., University of Iowa, 1969; 1971.
 WICKERSHAM, BEVERLY, Assistant Professor, Ph.D., University of Iowa, 1974; 1974.
 WOHLKE, PAULA L., Assistant Professor, Ph.D., Arizona State University, 1973; 1973.
 YATES, J. W., Professor, Ed.D., University of Missouri, Columbia, 1951; 1964.

Health Education (College of Education)

AARON, JAMES E., Professor, Ed.D., New York University, 1960; 1957.
 AMADIO, JOHN B., Assistant Professor, Ph.D., University of Oklahoma, 1970; 1970.
 BOYDSTON, DONALD N., Professor and *Chairman*, Ed.D., Columbia University, 1949; 1955.
 BRIDGES, A. FRANK, Professor, *Emeritus*, D.H.S., Indiana University, 1952; 1947.
 CASEY, RALPH, Associate Professor, Ed.D., Columbia University, 1956; 1957.
 DENNY, FLORENCE E., Associate Professor, *Emerita*, M.A., Columbia University, 1935; 1929.
 GRISSON, DEWARD K., Professor, *Emeritus*, Ed.D., Columbia University, 1952; 1956.
 HARRIS, EILEEN M., Assistant Professor, Ph.D., Southern Illinois University, 1970; 1967.
 LEFEVRE, JOHN R., Professor, Ed.D., Teachers College, Columbia University, 1950; 1955.
 LINDAUER, LARRY, Assistant Professor, Ph.D., Southern Illinois University, 1972; 1972.
 MOGLIA, RONALD, Assistant Professor, D.Ed., Temple University, 1976; 1975.
 PHILLIPS, FRANCES K., Associate Professor, *Emerita*, M.A., Columbia University, 1940; 1944.
 RICHARDSON, CHARLES E., Professor, Ed.D., University of California, Los Angeles, 1959; 1954.
 RITZEL, DALE, Associate Professor, Ph.D., Southern Illinois University, 1970; 1966.

RUSSELL, ROBERT D., Professor, Ed.D., Stanford University, 1954; 1965.
 SLIEPCEVICH, ELENA M., Professor, D.P.E., Springfield College, 1955; 1973.
 VAUGHN, ANDREW T., Professor, D.Ed., Columbia University, 1958; 1958.

Higher Education (College of Education)

ADAMS, FRANK C., Professor, *Emeritus*, Ph.D., Southern Illinois University, 1962; 1957.
 CALDWELL, OLIVER J., Professor, *Emeritus*, M.S. Oberlin College, 1927; 1966.
 CASEBEER, ARTHUR L., Associate Professor, Ed.D., Oregon State University, 1963; 1969.
 DAVIS, I. CLARK, Professor, *Emeritus*, Ed.D., Indiana University, 1956; 1949.
 DINGERSON, MICHAEL R., Assistant Professor, Ph.D., Southern Illinois University, 1974; 1968.
 GRAHAM, JACK W., Professor, Ph.D., Purdue University, 1951; 1951.
 GRINNELL, JOHN E., Professor, *Emeritus*, Ph.D., Stanford University, 1934; 1955.
 HAWLEY, JOHN B., Professor, Ph.D., University of Michigan, 1957; 1965.
 JUNG, LOREN B., Professor, Ph.D., Southern Illinois University, 1969; 1965.
 KEENE, ROLAND, Professor, Ed.D., Washington University, 1962; 1958.
 KING, JOHN E., Professor and *Chairman*, Ph.D., Cornell University, 1941; 1967.
 MORRILL, PAUL H., Professor, Ph.D., Northwestern University, 1956; 1964.
 PRATT, ARDEN L., Professor, Ph.D., State University of New York at Buffalo, 1968; 1971.
 SPEES, EMIL R., Assistant Professor, Ph.D., Claremont Graduate School, 1969; 1969.
 SWINBURNE, BRUCE R., Associate Professor, Ed.D., Indiana University, 1970; 1970.
 TOLLE DONALD J., Professor, Ed.D., Florida State University, 1957; 1967.
 ZIMMERMAN, ELWYN, Assistant Professor, Ph.D., Michigan State University, 1963; 1966.

History (College of Liberal Arts)

ADAMS, GEORGE W., Professor, *Emeritus*, Ph.D., Harvard University, 1946; 1958.
 ALLEN, HOWARD W., Professor, Ph.D., University of Washington, 1959; 1962.
 AMMON, HARRY, Professor, and *Chairman*, Ph.D., University of Virginia, 1948; 1950.
 BARTON, H. ARNOLD, Professor, Ph.D., Princeton University, 1962; 1970.
 BATINSKI, MICHAEL C., Assistant Professor, Ph.D., Northwestern University, 1969; 1968.
 BREHM, DONALD L., Assistant Professor, Ph.D., St. Louis University, 1968; 1967.
 CARROTT, M. BROWNING, Associate Professor, Ph.D., Northwestern University, 1966; 1967.
 CHERRY, GEORGE L., Professor, *Emeritus*, Ph.D., Northwestern University, 1938; 1947.
 CLIFFORD, JOHN R., Associate Professor, Ph.D., University of Iowa, 1954; 1955.
 CONRAD, DAVID E., Associate Professor, Ph.D., University of Oklahoma, 1962; 1967.
 DETWILER, DONALD S., Professor, Dr. Phil., Göttingen University, Germany, 1961; 1967.
 DOTSON, JOHN E., Assistant Professor, Ph.D., Johns Hopkins University, 1969; 1970.
 FLADELAND, BETTY L., Professor, Ph.D., University of Michigan, 1952; 1962.
 GARDINER, C. HARVEY, Professor, *Emeritus*, Ph.D., University of Michigan, 1945; 1957.
 GOLD, ROBERT L., Professor, Ph.D., University of Iowa, 1964; 1965.
 KUO, PING-CHIA, Professor, *Emeritus*, Ph.D., Harvard University, 1933; 1959.
 McFARLIN, HAROLD A., Assistant Professor, Ph.D., Indiana University, 1971; 1969.
 MURPHY, JAMES B., Associate Professor, Ph.D., Louisiana State University, 1968; 1968.
 O'DAY, EDWARD J., Instructor, A.M., Indiana University, 1956; 1962.
 PITKIN, WILLIAM A., Associate Professor, *Emeritus*, Ph.D., University of Texas, 1940; 1945.
 SHELBY, LON R., Professor, Ph.D., University of North Carolina, 1962; 1961.
 SIMON, JOHN Y., Professor, Ph.D., Harvard University, 1961; 1964.
 VYVERBERG, HENRY S., Associate Professor, Ph.D., Harvard University, 1950; 1968.
 WERLICH, DAVID P., Assistant Professor, Ph.D., University of Minnesota, 1968; 1968.
 WRIGHT, JOHN I., Associate Professor, *Emeritus*, A.M., University of Chicago, 1933; 1925.
 WU, TIEN-WEI, Associate Professor, Ph.D., University of Maryland, 1965; 1972.
 ZUCKER, STANLEY, Associate Professor, Ph.D., University of Wisconsin, 1968; 1967.

Human Development (College of Human Resources)

BARNES, MARY LOUISE, Assistant Professor, *Emerita*, M.S., Iowa State College, 1931; 1929.
 BENARD, BARBARA HOSKIN, Assistant Professor, Ph.D., Southern Illinois University, 1972; 1970.
 BROOKS, THOMAS M., Professor, Ph.D., Pennsylvania State University, 1961; 1971.
 CRAIG, KAREN E., Associate Professor, Ph.D., Purdue University, 1969; 1967.
 EDDLEMAN, E. JACQUELINE, Assistant Professor, Ph.D., Southern Illinois University, 1970; 1969.
 ENDRES, JEANNETTE M., Assistant Professor, Ph.D., St. Louis University, 1972; 1975.
 HARPER, JEANNIE M., Professor, *Emerita*, Ph.D., Cornell University, 1941; 1958.
 KONISHI, FRANK, Professor, Ph.D., Cornell University, 1958; 1961.
 PAYNE, IRENE R., Professor, Ph.D., Cornell University, 1960; 1965.

QUIGLEY, EILEEN, Professor, *Emerita*, Ed.D., University of Missouri, 1947; 1948.
 SPEES, EDITH C., Assistant Professor, Ph.D., Claremont Graduate School, 1968; 1969.
 ZUNICH, MICHAEL, Professor and *Director*, Ph.D., Florida State University, 1959; 1965.

Journalism (College of Communications and Fine Arts)

ATWOOD, L. ERWIN, Professor, Ph.D., University of Iowa, 1965; 1967.
 BROWN, GEORGE C., Professor, Ph.D., Southern Illinois University, 1963; 1956.
 CLAYTON, CHARLES C., Professor, *Emeritus*, B.J., University of Missouri, 1925; 1955.
 FORD, JAMES L. C., Professor, *Emeritus*, Ph.D., University of Minnesota, 1948; 1955.
 GRUNY, C. RICHARD, Assistant Professor, J.D., University of Illinois, 1959; 1959.
 HART, JIM ALLEE, Professor, *Emeritus*, Ph.D., University of Missouri, 1959; 1965.
 JOHNSON, RALPH H., Assistant Professor, Ph.D., University of Wisconsin, 1975; 1973.
 LONG, HOWARD R., Professor, *Emeritus*, Ph.D., University of Missouri, 1948; 1953.
 McCOY, RALPH E., Professor, *Emeritus*, Ph.D., University of Illinois, 1956; 1955.
 OSTMAN, ROBERT, Assistant Professor, Ph.D., University of Minnesota, 1974; 1975.
 RICE, W. MANION, Associate Professor, Ph.D., Southern Illinois University, 1967; 1959.
 STONECIPHER, HARRY W., Associate Professor, Ph.D., Southern Illinois University, 1971; 1969.
 TRAGER, ROBERT E., Associate Professor, Ph.D., University of Minnesota, 1971; 1973.
 WEBB, JOSEPH M., Assistant Professor and Acting Director, Ph.D., University of Illinois, 1973; 1976.

Library

BAUNER, RUTH E., Associate Professor, S.Ed., Southern Illinois University, 1974; 1956.
 BEDIENT, DOUGLAS, Assistant Professor, Ph.D., Southern Illinois University, 1971; 1971.
 BLACK, GEORGE W., JR., Associate Professor, M.S.L.S., Columbia University, 1966; 1968.
 BOYDSTON, JO ANN, Professor, Ph.D., Columbia University, 1950; 1955.
 CLIFFORD, JOHN, Associate Professor, Ph.D., University of Iowa, 1954; 1955.
 COHN, ALAN M., Professor, M.S., University of Illinois, 1955; 1955.
 DENZEL, HARRY, Assistant Professor, Ph.D., Southern Illinois University, 1971; 1965.
 DUCKETT, KENNETH W., Associate Professor, M.S., University of Wisconsin, 1951; 1965.
 MATTHEWS, SIDNEY E., Associate Professor, M.S.L.S., University of Illinois 1952; 1964.
 PETERSON, KENNETH G., Professor and *Dean*, Ph.D., University of California at Berkeley, 1968; 1976.
 SIMON, JOHN Y., Professor, Ph.D., Harvard University, 1961; 1964.
 WINSOR, DONALD L., Associate Professor, Ed.D., University of Florida, 1961; 1965.

Linguistics (College of Liberal Arts)

CARRELL, PATRICIA L., Associate Professor and *Chairperson*, Ph.D., University of Texas at Austin, 1966; 1968.
 GILBERT, GLENN G., Professor, Ph.D., Harvard University, 1963; 1970.
 KONNEKER, BEVERLY HILL, Assistant Professor, Ph.D., University of Texas at Austin, 1972; 1969.
 NGUYEN, DINH-HOA, Professor, Ph.D., New York University, 1956; 1969.
 PARISH, CHARLES, Professor, Ph.D., University of New Mexico, 1959; 1965.
 PERKINS, ALLAN K., Assistant Professor, Ph.D., University of Michigan, 1976; 1976.
 REDDEN, JAMES E., Professor, Ph.D., Indiana University, 1965; 1967.
 SILVERSTEIN, RAYMOND O., Assistant Professor, Ph.D., University of California at Los Angeles, 1973; 1970.

Marketing (College of Business and Administration)

ADAMS, KENDALL A., Professor, Ph.D., Michigan State University, 1962; 1965.
 ANDERSEN, R. CLIFTON, Professor, D.B.A., Indiana University, 1960; 1967.
 DARLING, JOHN R., JR., Professor, Ph.D., University of Illinois, 1967; 1976.
 DOMMERMUTH, WILLIAM P., Professor, Ph.D., Northwestern University, 1964; 1968.
 HINDERSMAN, CHARLES H., Professor, D.B.A., Indiana University, 1959; 1960.
 MOORE, JAMES R., Assistant Professor, Ph.D., University of Illinois, 1972; 1969.
 PERRY, DONALD L., Associate Professor, Ph.D., University of Illinois, 1966; 1964.
 WALTERS, GLENN, Professor and *Chairman*, Ph.D., University of Illinois, 1964; 1977.

Mathematics (College of Liberal Arts)

BAARTMANS, ALPHONSE H., Associate Professor and *Chairman*, Ph.D., Michigan State University, 1967; 1967.
 BIESTERFELDT, HERMAN, Associate Professor, Ph.D., Pennsylvania State University, 1963; 1968.
 BLACK, AMOS H., Professor, *Emeritus*, Ph.D., Cornell University, 1932; 1948.
 BOUWSMA, WARD, Associate Professor, Ph.D., University of Michigan, 1962; 1967.

BURTON, THEODORE A., Professor, Ph.D., Washington State University, 1964; 1966.
 CRENSHAW, JAMES A., Associate Professor, Ph.D., University of Illinois, 1967; 1967.
 DANHOF, KENNETH, Associate Professor, Ph.D., Purdue University, 1969; 1969.
 FOLAND, NEAL E., Professor, Ph.D., University of Missouri, 1961; 1965.
 GATES, LESLIE D., Associate Professor, Ph.D., Iowa State University, 1952; 1961.
 GREGORY, JOHN, Associate Professor, Ph.D., University of California at Los Angeles, 1969; 1972.
 GRIMMER, RONALD C., Professor, Ph.D., University of Iowa, 1967; 1967.
 HALL, DILLA, Associate Professor, *Emeritus*, Ph.D., St. Louis University, 1955; 1924.
 HOOKER, JOHN W., Assistant Professor, Ph.D., University of Oklahoma, 1967; 1967.
 HUNSAKER, WORTHEN N., Associate Professor, Ph.D., Washington State University, 1966; 1969.
 KAMMLER, DAVID, Associate Professor, Ph.D., University of Michigan, 1971; 1971.
 KIRK, RONALD B., Associate Professor, Ph.D., California Institute of Technology, 1968; 1968.
 KOCH, CHARLES, Assistant Professor, Ph.D., University of Illinois, 1961; 1966.
 KUIPERS, LAUWERENS, Professor, *Emeritus*, Ph.D., Vrije Universiteit (Amsterdam), 1947; 1966.
 LANGENHOP, CARL E., Professor, Ph.D., Iowa State University, 1948; 1961.
 MARK, ABRAHAM M., Professor, Ph.D., Cornell University, 1947; 1950.
 MAXWELL, CHARLES, Professor, Ph.D., University of Illinois, 1955; 1963.
 McDANIEL, WILBUR C., Professor, *Emeritus*, Ph.D., University of Wisconsin, 1939; 1939.
 MILLMAN, RICHARD, Associate Professor, Ph.D., Cornell University, 1971; 1971.
 MOORE, ROBERT A., Associate Professor, Ph.D., Indiana University, 1962; 1965.
 NATHANSON, MELVYN B., Associate Professor, Ph.D., University of Rochester, 1971; 1971.
 OLMSTED, JOHN M. H., Professor, *Emeritus*, Ph.D., Princeton University, 1940; 1960.
 PAINE, THOMAS B., Assistant Professor, Ph.D., University of Oregon, 1966; 1966.
 PANCHAPAKESAN, S., Associate Professor, Ph.D., Purdue University, 1969; 1970.
 PARKER, GEORGE D., Assistant Professor, Ph.D., University of California at San Diego 1971; 1972.
 PATULA, WILLIAM T., Assistant Professor, Ph.D., Carnegie-Mellon University, 1972; 1972.
 PEDERSEN, FRANKLIN D., Associate Professor, Ph.D., Tulane University, 1967; 1965.
 PEDERSEN, KATHERINE, Assistant Professor, Ph.D., Tulane University, 1969; 1965.
 SELDIN, JONATHAN P., Assistant Professor, Ph.D., University of Amsterdam, 1968; 1969.
 SHOCK, ROBERT C., Associate Professor, Ph.D., University of North Carolina, 1969; 1969.
 SKALSKY, MICHAEL, Professor, D.Nat.Sc., University of Göttingen, 1949; 1957.
 SNYDER, HERBERT H., Professor, Ph.D., Lehigh University, 1965; Ph.D., University of South Africa, 1972; 1966.
 STARKS, THOMAS H., Associate Professor, Ph.D., Virginia Polytechnic Institute, 1959; 1961.
 TOWNSEND, CARL, Associate Professor, Ph.D., Washington State University, 1965; 1965.
 WILSON, JOSEPH C., Professor, Ph.D., Louisiana State University, 1954; 1957.

Microbiology (College of Science)

BOWSER, DEAN V., Assistant Professor, Ph.D., University of Georgia, 1971; 1972.
 CASTER, JOHN, Assistant Professor, Ph.D., St. Louis University, 1968; 1972.
 COOPER, MORRIS D., Assistant Professor, Ph.D., University of Georgia, 1971; 1973.
 JACKSON, ROBERT, Professor, Ph.D., Purdue University, 1963; 1974.
 LINDEGREN, CARL C., Professor, *Emeritus*, Ph.D., California Institute of Technology, 1931; 1947.
 McCLARY, DAN O., Professor, Ph.D., Washington University, 1951; 1951.
 MYERS, WALTER L., Professor, Ph.D., University of Wisconsin, 1962; 1973.
 OGUR, MAURICE, Professor and *Chairman*, Ph.D., Columbia University, 1948; 1953.
 ROUHANDEH, HASSAN, Professor, Ph.D., Kansas State University, 1959; 1967.
 ROWAN, DIGHTON F., Professor, Ph.D., Stanford University, 1954; 1973.
 SHECHMEISTER, ISAAC L., Professor, Ph.D., University of California at Berkeley, 1949; 1957.
 TEWARI, RAM P., Professor, Ph.D., Ohio State University, 1954; 1973.

Music (College of Communications and Fine Arts)

BARWICK, STEVEN, Professor, Ph.D., Harvard University, 1949; 1955.
 BATEMAN, MARIANNE WEBB, Professor, M.Mus., University of Michigan, 1959; 1965.
 BERGT, ROBERT, Associate Professor, S.T.M., Concordia Seminary, 1958; 1974.
 BOE, JOHN, Associate Professor, Northwestern University, 1969; 1971.
 BOTTJE, WILL GAY, Professor, A.Mus.D., Eastman School of Music, 1955; 1957.
 COKER, WILSON W., Professor, D.M.A., University of Illinois, 1965; 1975.

DENKER, FRED, Professor, *Emeritus*, Ph.D., Eastman School of Music, 1951; 1957.
 EDDINS, JOHN, Assistant Professor, Ph.D., Florida State University, 1966; 1969.
 FLOYD, SAMUEL, Associate Professor, Ph.D., Southern Illinois University, 1969; 1968.
 GORDON, RODERICK, Professor, Ph.D., University of Wisconsin, 1953; 1963.
 GRIZZELL, MARY JANE, Assistant Professor, M.Mus., Eastman School of Music, 1943; 1959.
 HANES, MICHAEL D., Assistant Professor, M.M.Ed., Southern Illinois University, 1965; 1970.
 HUNT, C. B., JR., Professor, University of California, Los Angeles, 1949; 1974.
 HUSSEY, GEORGE, Associate Professor, M.A.Ed., Washington University, 1963; 1963.
 KAGEFF, BURT, Professor, A.M., University of Missouri, 1962; 1969.
 KINGSBURY, ROBERT, Associate Professor, M.Mus., Northwestern University, 1952; 1961.
 KOENIGSTEIN, NICHOLAS, Assistant Professor, M.Mus., West Virginia University, 1956; 1967.
 LAWRENCE, MARJORIE, Professor, *Emerita*; 1960.
 LEMASTERS, DONALD, Instructor, M.Mus., Northwestern University, 1949; 1967.
 McHUGH, CATHERINE, Professor, Ed.D., Columbia University, 1959; 1969.
 McINTOSH, DAVID, Associate Professor, *Emeritus*, M.A., University of Iowa, 1935; 1927.
 MUELLER, ROBERT, Professor, Ph.D., Indiana University, 1964; 1948.
 OLSSON, PHILLIP, Professor and Director, M.Mus., Chicago Conservatory, 1949; 1949.
 POULOS, HELEN, Assistant Professor, D.M., Indiana University, 1971; 1969.
 RESNICK, ROBERT, Professor, M.Mus., Wichita State University, 1949; 1949.
 SIENER, MELVIN, Associate Professor, M.A., University of Iowa, 1954; 1962.
 TAYLOR, CHARLES, Associate Professor, Ed.D., Columbia University, 1950-1957.
 UNDERWOOD, JERVIS, Associate Professor, Ph.D., North Texas State University, 1970, 1971.
 WALLACE, MARY ELAINE, Professor, M.Mus., University of Illinois, 1954; 1969.
 WERNER, KENT, Associate Professor, Ph.D., University of Iowa, 1966; 1963.
 WHARTON, JOHN, Associate Professor, *Emeritus*, M.Mus., American Conservatory, 1940; 1945.

Philosophy (College of Liberal Arts)

AUDI, MICHAEL N., Associate Professor, Ph.D., Johns Hopkins University, 1970; 1970.
 CLARKE, DAVID S., JR., Associate Professor, Ph.D., Emory University, 1964; 1966.
 DIFFENBECK, JAMES A., Professor, Ph.D., Harvard University, 1950; 1950.
 EAMES, ELIZABETH R., Professor, Ph.D., Bryn Mawr College, 1951; 1963.
 EAMES, S. MORRIS, Professor, Ph.D., University of Chicago, 1958; 1963.
 FRONDIZI, RISIERI, Professor, Ph.D., National University of Mexico, 1950; 1970.
 GILLAN, GARTH J., Associate Professor, Ph.D., Duquesne University, 1966; 1969.
 HAHN, LEWIS E., Research Professor, *Emeritus*, Ph.D., University of California, 1939; 1963.
 HAYWARD, JOHN, Professor, Ph.D., University of Chicago, 1949; 1968.
 HOWIE, JOHN, Associate Professor, Ph.D., Boston University, 1965; 1966.
 KELLY, MATTHEW J., Associate Professor, Ph.D., University of Notre Dame, 1963; 1966.
 LIU, SHU-HSIEN, Professor, Ph.D., Southern Illinois University, 1966; 1966.
 McCLURE, GEORGE T., Professor and *Chairman*, Ph.D., Ohio State University, 1958; 1958.
 MIJUSKOVIC, BEN L., Associate Professor, Ph.D., University of California at San Diego, 1972; 1972.
 MOORE, WILLIS, Professor, *Emeritus*, Ph.D., University of California, 1936; 1955.
 PLOCHMANN, GEORGE KIMBALL, Professor, Ph.D., University of Chicago, 1950; 1949.
 SCHEDLER, GEORGE, Associate Professor, Ph.D., University of California at San Diego, 1973; 1973.
 SCHILPP, PAUL A., Visiting Professor, Ph.D., Stanford University, 1936; 1965.
 TENNEY, CHARLES, University Professor, *Emeritus*, Ph.D., University of Oregon, 1931; 1931.

Physical Education (College of Education)

ACKERMAN, KENNETH, Assistant Professor, M.A., Michigan State University, 1959; 1969.
 CARROLL, PETER, Assistant Professor, Ph.D., Pennsylvania State University, 1970; 1969.
 DAVIES, DOROTHY R., Professor, *Emerita*, Ed.D., University of Cincinnati, 1944; 1939.
 FRANKLIN, C. C., Associate Professor, M.S. Ed., Indiana University, 1946; 1948.
 GOOD, LARRY, Associate Professor, Ed.D., Temple University, 1968; 1967.
 KNOWLTON, RONALD, Professor, Ph.D., University of Illinois, 1961; 1961.
 LEFEVERS, VICTORIA A., Assistant Professor, Ph.D., Texas Woman's University, 1971; 1974.

- POTTER, MARJORIE BOND, Professor, *Emerita*, Ph.D., University of Southern California, 1958; 1961.
 SHEA, EDWARD, Professor, Ph.D., New York University, 1955; 1954.
 SPACKMAN, ROBERT, Associate Professor, M.S.Ed., Southern Illinois University, 1960, 1957.
 STEHR, JEAN, Associate Professor, M.A., Texas Woman's University, 1945; 1944.
 STOTLAR, JOHN, Associate Professor, D.P.Ed., Indiana University, 1954; 1948.
 THORPE, JO ANNE LEE, Professor, Ph.D., Texas Woman's University, 1964; 1958.
 WEST, CHARLOTTE, Professor, Ph.D., University of Wisconsin, 1969; 1957.
 WILKINSON, JAMES, Associate Professor and *Acting Chairman*, D.P.Ed., Indiana University, 1958; 1951.
 ZIMMERMAN, HELEN, Professor, *Emerita*, Ph.D., University of Wisconsin, 1951; 1952.

Physics and Astronomy (College of Science)

- ARVIN, MARTIN J., Professor, *Emeritus*, Ph.D., University of Illinois, 1934; 1949.
 BORST, WALTER L., Associate Professor, Ph.D., University of California, Berkeley, 1968; 1971.
 BOSE, SUBIR K., Associate Professor, Ph.D., University of Allahabad, India, 1967; 1968.
 BRASEFIELD, CHARLES J., Professor, *Emeritus*, Ph.D., Princeton University, 1927; 1954.
 CHANG-FANG, CHUEN-CHUEN, Assistant Professor, Ph.D., Duke University, 1961; 1971.
 CUTNELL, JOHN D., Associate Professor, Ph.D., University of Wisconsin, 1967; 1968.
 GRUBER, BRUNO J., Professor, Ph.D., University of Vienna, Austria, 1961; 1972.
 HENNEBERGER, WALTER C., Professor, Ph.D., Göttingen University, Germany, 1959; 1963.
 JOHNSON, KENNETH W., Associate Professor, Ph.D., Ohio State University, 1967; 1970.
 NICKELL, WILLIAM E., Professor, Ph.D., University of Iowa, 1954; 1963.
 SANDERS, FRANK C., JR., Associate Professor, Ph.D., University of Texas, 1968; 1969.
 SAPOROSCHENKO, MYKOLA, Associate Professor, Ph.D., Washington University, 1958; 1965.
 WATSON, RICHARD E., Professor and *Chairman*, Ph.D., University of Illinois, 1938; 1958.
 YOUNG, OTIS B., Professor, *Emeritus*, Ph.D., University of Illinois, 1928; 1929.
 ZITTER, ROBERT N., Professor, Ph.D., University of Chicago, 1962; 1967.

Physiology (College of Science)

- BANERJEE, CHANDRA M., Professor, M.D., University of Calcutta, India, Ph.D., Medical College of Virginia, 1967; 1974.
 BOELKINS, JAMES N., Assistant Professor, Ph.D., University of Missouri, 1971; 1975.
 BROWNING, RONALD A., Associate Professor, Ph.D., University of Illinois Medical Center, Chicago, 1971; 1973.
 CASPARY, DONALD M., Associate Professor, Ph.D., New York University, 1971; 1972.
 CLINE, WILLIAM H., JR., Professor, Ph.D., West Virginia University, 1965; 1973.
 DOORENBOS, NORMAN, Professor, Ph.D., University of Michigan, 1954; 1977.
 DUNAGAN, TOMMY T., Professor, Ph.D., Purdue University, 1960; 1962.
 ELLERT, MARTHA S., Associate Professor, Ph.D., University of Miami, 1968; 1975.
 ESTAVILLO, JAIME A., Assistant Professor, Ph.D., University of California, Davis, 1970; 1975.
 FAINGOLD, CARL L., Associate Professor, Ph.D., Northwestern University, 1970; 1972.
 FALVO, RICHARD E., Assistant Professor, Ph.D., University of Wyoming, 1970; 1973.
 FOOTE, FLORENCE M., Professor, *Emerita*, Ph.D., University of Iowa, 1940; 1963.
 FREUND, MATTHEW, Professor and *Chairman*, Ph.D., Rutgers University, 1958; 1976.
 GASS, GEORGE H., Professor, Ph.D., Ohio State University, 1955; 1959.
 HUNTER, WILLIAM S., Associate Professor, Ph.D., Michigan State University, 1971; 1975.
 KAPLAN, HAROLD M., Professor, *Emeritus*, Ph.D., Harvard University, 1933; 1949.
 LEHR, ROBERT P., JR., Associate Professor, Ph.D., Baylor University, 1971; 1973.
 MICKUS, JOHN C., Assistant Professor, Ph.D., Southern Illinois University, 1972; 1974.
 MILLER, DONALD M., Professor, Ph.D., University of Illinois, 1965; 1966.
 MILLER, GINGER, Assistant Professor, Ph.D., Baylor University, 1976; 1977.
 MYERS, J. HURLEY, Associate Professor, Ph.D., University of Tennessee School of Medicine, 1969; 1971;
 NEQUIN, LYNN G., Associate Professor, Ph.D., University of Illinois Medical School, 1970; 1973.
 PARKE, WESLEY W., Professor, Ph.D., University of Connecticut, 1957; 1974.
 PETERSON, RUDOLPH N., Associate Professor, Ph.D., University of Florida, 1965; 1976.
 RICHARDSON, ALFRED W., Professor, Ph.D., University of Iowa, 1949; 1966.
 RUSSELL, LONNIE D., Associate Professor, Ph.D., University of Nebraska, 1974; 1977.
 SOLLBERGER, ARNE R., Professor, M.D., Caroline Institute, Sweden, 1957; 1972.
 SOMANI, SATU M., Associate Professor, Ph.D., Liverpool University, England, 1969; 1974.

WINET, HOWARD, Associate Professor, Ph.D., University of California at Los Angeles, 1969; 1977.

YAU, WILLIAM M., Assistant Professor, Ph.D., Medical College of Virginia, 1971; 1973.

Plant and Soil Science (College of Agriculture)

CASTER, ALFRED B., Professor, *Emeritus*, Ph.D., University of Arizona, 1941; 1957.

COORTS, GERALD D., Professor, and *Chairman*, Ph.D., University of Illinois, 1964; 1968.

ELKINS, DONALD M., Professor, Ph.D., Auburn University, 1967; 1967.

HILLYER, IRVIN G., Professor, Ph.D., Michigan State University, 1956; 1956.

JONES, JOE H., Associate Professor, Ph.D., Ohio State University, 1960; 1964.

KAPUSTA, GEORGE, Associate Professor, Ph.D., Southern Illinois University, 1975; 1964.

LEASEURE, J. K., Professor, Ph.D., University of Illinois, 1953; 1966.

MALEIKE, RAYMOND R., Assistant Professor, Ph.D., Virginia Polytechnic Institute, 1974; 1973.

MOWRY, JAMES B., Professor, Ph.D., Rutgers University, 1951; 1951.

MYERS, OVAL, JR., Professor, Ph.D., Cornell University, 1963; 1968.

OLSEN, FARREL J., Associate Professor, Ph.D., Rutgers University, 1961; 1971.

PORTZ, HERBERT L., Professor, Ph.D., University of Illinois, 1954; 1954.

SATCHELL, DONALD P., Associate Professor, Ph.D., North Carolina State University, 1951; 1969.

STUCKY, DONALD J., Associate Professor, Ph.D., Purdue University, 1963; 1970.

TWEEDY, JAMES A., Professor, Ph.D., Michigan State University, 1966; 1966.

VARSA, EDWARD C., Assistant Professor, Ph.D., Michigan State University, 1970; 1970.

Political Science (College of Liberal Arts)

ALEXANDER, ORVILLE, Professor, *Emeritus*, Ph.D., University of Iowa, 1936; 1938.

BAKER, JOHN H., Associate Professor and *Chairman*, Ph.D., Princeton University, 1961; 1966.

CHOU, IKUA, Professor, Ph.D., Fletcher School of Law and Diplomacy, 1949; 1964.

DALE, RICHARD, Associate Professor, Ph.D., Princeton University, 1962; 1966.

DERGE, DAVID RICHARD, Professor, Ph.D., Northwestern University, 1955; 1972.

ERVIN, OSBIN L., Assistant Professor, Ph.D., University of Tennessee, 1974; 1974.

FOSTER, JOHN L., Assistant Professor, Ph.D., University of Minnesota, 1971; 1975.

GARNER, WILLIAM R., Associate Professor, Ph.D., Tulane University, 1963; 1966.

GOODSELL, CHARLES T., Professor, Ph.D., Harvard University, 1961; 1966.

HANSON, EARL THOMAS, Professor, *Emeritus*, Ph.D., University of Illinois, 1948; 1960.

HARDENBERGH, WILLIAM, Professor, Ph.D., University of Illinois, 1954; 1960.

ISAKOFF, JACK F., Professor, *Emeritus*, Ph.D., University of Illinois, 1937; 1962.

JACKSON, JOHN S., III, Associate Professor, Ph.D., Vanderbilt University, 1971; 1969.

JACOBINI, HORACE B., Professor, Ph.D., University of Kansas, 1951; 1957.

KAMARASY, EGON K., Assistant Professor, Doctor Pllitics, Budapest University, Hungary, 1942; 1959.

KENNEY, DAVID T., Professor, Ph.D., University of Illinois, 1952; 1951.

KLINGBERG, FRANK L., Professor, *Emeritus*, Ph.D., University of Chicago, 1938; 1946.

LANDECKER, MANFRED, Associate Professor, Ph.D., Johns Hopkins University, 1965; 1959.

MACE, GEORGE R., Associate Professor, Ph.D., Claremont Graduate School, 1963; 1970.

McGRATH, ROBERT A., Professor, *Emeritus*, Ph.D., University of Iowa, 1947; 1949.

MILLER, ROY E., Assistant Professor, Ph.D., University of Illinois, 1971; 1967.

MORTON, WARD M., Professor, *Emeritus*, Ph.D., University of Texas, 1941; 1949. 1955.

NELSON, RANDALL H., Professor, Ph.D., University of Michigan, 1956; 1955.

PAINE, JOANN P., Associate Professor, Ph.D., University of Oregon, 1967; 1966.

RIDGEWAY, MARIAN E., Professor, *Emerita*, Ph.D., University of Illinois, 1952; 1952.

STAUBER, LELAND G., Associate Professor, Ph.D., Harvard University, 1964; 1966.

TURLEY, WILLIAM S., Associate Professor, Ph.D., University of Washington, 1972; 1971.

TURNER, MAX W., Professor, Ph.D., University of Iowa, 1947; 1947.

VAN DER SLIK, JACK, Associate Professor, Ph.D., Michigan State University, 1967; 1967.

WASBY, STEPHEN L., Professor, Ph.D., University of Oregon, 1962; 1966.

Psychology (College of Liberal Arts)

BAEZ, LUIS A., Assistant Professor, Ph.D., Princeton University, 1973; 1974.

BEKKER, L. DEMOYNE, Associate Professor, Ph.D., Ohio State University, 1968; 1969.

BLISS, DAVID K., Associate Professor, Ph.D., University of California at Berkeley, 1968; 1974.

BRUTTEN, GENE J., Professor, Ph.D., University of Illinois, 1957; 1957.

BUCK, TERENCE D., Associate Professor, Ph.D., University of Missouri, 1968; 1969.

CARRIER, NEIL A., Professor, Ph.D., University of Michigan, 1956; 1957.

DOLLINGER, STEPHEN, Assistant Professor, Ph.D., University of Missouri, 1977; 1977.

DURLAK, JOSEPH A., Assistant Professor, Ph.D., Vanderbilt University, 1971; 1976.
 EHRENFREUND, DAVID, Professor and *Chairman*, Ph.D., State University of Iowa, 1947; 1962.
 GRAHAM, JACK W., Professor, Ph.D., Purdue University, 1951; 1951.
 HARRIS, VINCENT A., Professor, Ph.D., University of Texas, 1964; 1968.
 HAYNES, STEPHEN N., Associate Professor, Ph.D., University of Colorado, 1971; 1976.
 HELMS, JANET, Assistant Professor, Ph.D., Iowa State University, 1975; 1977.
 KELLEY, NOBLE, H., Professor, *Emeritus*, Ph.D., State University of Iowa, 1936; 1951.
 LIT, ALFRED, Professor, Ph.D., Columbia University, 1948; 1961.
 McHOSE, JAMES H., Professor, Ph.D., University of Iowa, 1961; 1961.
 McKILLIP, JOHN A., Assistant Professor, Ph.D., Loyola University of Chicago, 1974; 1975.
 McNEEL, STEVEN P., Associate Professor, Ph.D., University of California, Santa Barbara, 1969; 1970.
 MELTZER, DONALD, Professor, Ph.D., University of Pittsburg, 1963; 1966.
 MILLER, H. RICHARD, Associate Professor, Ph.D., University of Missouri, 1967; 1973.
 MITCHELL, THOMAS O., Associate Professor, Ph.D., University of Colorado, 1969; 1968.
 MOLFESE, DENNIS L., Associate Professor, Ph.D., Pennsylvania State University, 1972; 1972.
 MOLFESE, VICTORIA, J., Assistant Professor, Ph.D., Pennsylvania State University, 1974; 1972.
 MORELAND, JOHN R., Associate Professor, Ph.D., University of Massachusetts, 1971; 1973.
 O'DONNELL, JAMES P., Associate Professor, Ph.D., University of Pittsburgh, 1965; 1965.
 PITZ, GORDON F., Professor, Ph.D., Carnegie-Mellon University, 1963; 1963.
 PURCELL, THOMAS D., Associate Professor, Ph.D., Southern Illinois University, 1965; 1960.
 RADER, GORDON E., Professor, Ph.D., Yale University, 1956; 1968.
 RADTKE, ROBERT C., Associate Professor, Ph.D., State University of Iowa, 1963; 1966.
 RAFFERTY, JANET E., Professor, Ph.D., Ohio State University, 1952; 1954.
 RAMANAIAH, NERELLA, Associate Professor, Ph.D., University of Oregon, 1971; 1971.
 RINGUETTE, EUGENE L., Associate Professor, Ph.D., Purdue University, 1963; 1967.
 SCHILL, THOMAS R., Professor, Ph.D., Oklahoma State University, 1963; 1963.
 SCHMECK, RONALD R., Associate Professor, Ph.D., Ohio University, 1969; 1969.
 SHOEMAKER, DONALD J., Professor, Ph.D., Ohio State University, 1955; 1960.
 SNYDER, JOHN F., Associate Professor, Ph.D., Loyola University, 1965; 1968.
 TINSLEY, HOWARD E. A., Associate Professor, Ph.D., University of Minnesota, 1971; 1973.
 WESTBERG, WILLIAM C., Professor, Ph.D., Pennsylvania State University, 1948; 1952.

Radio-Television (College of Communications and Fine Arts)

DYBVIG, HOMER E., Associate Professor, Ph.D., Southern Illinois University, 1970; 1961.
 HILDRETH, RICHARD, Assistant Professor, M.S., Syracuse University, 1968; 1968.
 KURTZ, JOHN L., Assistant Professor, Ph.D., Southern Illinois University, 1973; 1962.
 LYNCH, CHARLES T., Associate Professor and *Chairman*, Ph.D., Southern Illinois University, 1972; 1967.
 OLSON, THOMAS O., Assistant Professor, Ph.D., Wayne State University, 1966; 1971.
 ROBBINS, BUREN C., Associate Professor, *Emeritus*, M.A., University of Iowa, 1935; 1949.
 RYAN, STEVE S., Assistant Professor, Ph.D., Ohio State University, 1974; 1976.
 SHIPLEY, CHARLES W., Professor, Ph.D., Florida State University, 1971; 1971.
 TERWISCHE, DAVID K., Assistant Professor, Ph.D., University of Missouri, 1971; 1970.

Recreation (College of Education)

FREEBERG, WILLIAM, Professor, D. Rec., Indiana University, 1950; 1942.
 McEWEN, DOUGLAS, Assistant Professor, Ph.D., Michigan State University, 1973; 1975.
 O'BRIEN, WILLIAM, Professor, and *Chairman*, D. Rec., Indiana University, 1967; 1948.
 SMITH, OWEN R., Assistant Professor, Ph.D., University of Utah, 1974; 1974.
 TAYLOR, LOREN, Professor, *Emeritus*, Ed.D., Columbia University, 1957; 1957.

Rehabilitation Institute (College of Human Resources)

ALLEN, HARRY A., Associate Professor, Ed.D., University of Arkansas, 1971; 1970.
 AZRIN, NATHAN H., Professor, Ph.D., Harvard University, 1956; 1958.
 BAKER, RICHARD J., Associate Professor, Ed.D., Auburn University, 1972; 1974.
 BENDER, ELEANOR, Assistant Professor, M.S., Southern Illinois University, 1972; 1961.
 BRYSON, SEYMOUR L., Associate Professor, Ph.D., Southern Illinois University, 1972; 1969.
 CRAIG, KAREN E., Associate Professor, Ph.D., Purdue University, 1969; 1967.
 CUVO, ANTHONY J., Associate Professor, Ph.D., University of Connecticut, 1973; 1973.

DICKEY, THOMAS W., Associate Professor, *Emeritus*, M.A., Southern Illinois University, 1964; 1964.
 GARDNER, MARGARET S., Associate Professor, Ph.D., Northwestern University, 1960; 1968.
 GRENFELL, JOHN E., Professor, Ed.D., Oregon State University, 1966, 1966.
 HAWLEY, IRENE B., Assistant Professor, Ph.D., Southern Illinois University, 1973; 1968.
 HENSON, DONALD E., Visiting Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1977; 1977.
 LEE, ROBERT E., Associate Professor, *Emeritus*, Ph.D., University of Minnesota, 1964; 1964.
 LORENZ, JEROME R., Associate Professor, Ph.D., University of Wisconsin, 1973; 1973.
 McDONALD, A. ANDREW, Assistant Professor, Ph.D., University of Wisconsin at Milwaukee, 1976; 1976.
 MIRANTI, JOSEPH P., Professor, M.D., Loyola University of Chicago, 1950; 1961.
 PETERS, JAMES S., Visiting Professor, Ph.D., Purdue University, 1955; 1977.
 POPPEN, ROGER L., Associate Professor, Ph.D., Stanford University, 1968; 1970.
 RENZAGLIA, GUY A., Professor, and *Director*, Ph.D., University of Minnesota, 1952; 1955.
 ROBINSON, WALTER G., Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1976; 1968.
 RUBIN, HARRIS B., Associate Professor, Ph.D., University of Chicago, 1965; 1966.
 SAWYER, HORACE W., Associate Professor, Ed.D., Auburn University, 1973; 1977.
 SCHUMACHER, BROCKMAN, Professor, Ph.D., Washington University, 1969; 1967.
 VIECELI, LOUIS, Associate Professor, M.S. Ed., Southern Illinois University, 1959; 1958.

Religious Studies (College of Liberal Arts)

HAYWARD, JOHN F., Professor and *Chairman*, Ph.D., University of Chicago, 1949; 1968.
 LEMERT, CHARLES C., Associate Professor, Ph.D., Harvard University, 1972; 1971.

Social and Community Service (College of Human Resources)

AUERBACH, ARNOLD J., Professor, Ph.D., University of Pittsburgh, 1961; 1972.
 ALLIBAND, TERRY, Assistant Professor, Ph.D., University of Iowa, 1974.
 BHATTACHARYYA, JNANABROTA, Associate Professor, Ph.D., University of Delhi, India, 1969; 1968.
 BROWN, TALLON H., Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1975; 1963.
 CHARLES, EUNICE A., Assistant Professor, Ph.D., Boston University, 1973; 1974.
 DENISE, PAUL S., Assistant Professor, Ph.D., University of California, Berkeley, 1974; 1968.
 EHRLICH, IRA F., Professor, and *Director*, D.S.W., Washington University, 1970; 1976.
 HANSON, JAMES M., Assistant Professor, Ph.D., Southern Illinois University, 1974; 1974.
 POSTON, RICHARD, Professor, *Emeritus*, B.A., University of Montana, 1940; 1953.
 ROSEN, ANITA L., Visiting Assistant Professor, Ph.D., Southern Illinois University, 1975; 1971.
 SMITH, STANLEY H., Professor, Ph.D., Washington State University, 1953; 1973.
 THOMAS, RICHARD M., Professor, D.Ed., University of California, Los Angeles, 1964; 1966.
 WAKELEY, RAYMOND E., Professor, *Emeritus*, Ph.D., Cornell University, 1928; 1961.

Sociology (College of Liberal Arts)

ALIX, ERNEST K., Associate Professor, Ph.D., Southern Illinois University, 1966; 1967.
 BROOKS, MELVIN, Associate Professor, Ph.D., University of Wisconsin, 1941; 1956.
 BURGER, THOMAS, Professor, Ph.D., Duke University, 1972; 1973.
 EYNON, THOMAS G., Professor, Ph.D., Ohio State University, 1959; 1968.
 GASTON, JERRY C., Associate Professor and *Chairperson*, Ph.D., Yale University, 1969; 1969.
 GREENSTEIN, THEODORE, Assistant Professor, Ph.D., Washington State University, 1976; 1976.
 HAWKES, ROLAND K., Associate Professor, Ph.D., Johns Hopkins University, 1967; 1970.
 HENDRIX, LEWELLYN, Assistant Professor, Ph.D., Princeton University, 1974; 1971.
 JOHNSON, ELMER H., Professor, Ph.D., University of Wisconsin, 1950; 1966.
 LANTZ, HERMAN R., Professor, Ph.D., Ohio State University, 1950; 1950.
 LEMERT, CHARLES C., Assistant Professor, Ph.D., Harvard University, 1972; 1971.
 MARCUM, JOHN P., JR., Assistant Professor, Ph.D., University of Texas, 1976; 1976.
 MEDDIN, JAY R., Assistant Professor, Ph.D., University of Kentucky, 1973; 1972.
 MUNCH, PETER A., Professor, *Emeritus*, Ph.D., University of Oslo, 1946; 1957.

NALL, FRANK C., II, Associate Professor, Ph.D., Michigan State University, 1959; 1964.
 SNYDER, CHARLES R., Professor, Ph.D., Yale University, 1954; 1960.

Special Education (College of Education)

BRECHT, RICHARD, Assistant Professor, Ed.D., University of Missouri, 1973; 1973.
 CASEY, JOHN P., Professor, Ed.D., Indiana University, 1963; 1964.
 CROWNER, JAMES, Professor, Ph.D., Michigan State University, 1960; 1966.
 EWING, NORMA J., Assistant Professor, Ph.D., Southern Illinois University, 1974; 1973.
 HISAMA, TOSHIKI, Assistant Professor, Ph.D., University of Oregon, 1971; 1971.
 JOINER, LEE M., Professor, Ph.D., Michigan State University, 1966; 1968.
 JUUL, KRISTEND, Professor, Ph.D., Wayne State University, 1953; 1970.
 McKAY, ELIZABETH B., Associate Professor, *Emerita*, Ph.D., Syracuse University, 1952; 1952.
 MORGAN, HOWARD, Professor, and *Acting Chairman*, Ed.D., Wayne State University, 1962; 1969.
 RAINEY, DAN, Assistant Professor, M.S.Ed., Southern Illinois University, 1956; 1957.
 STEPHENS, WYATT E., Professor, Ph.D., University of Oklahoma, 1963; 1969.
 STONEBURNER, ROBERT L., Assistant Professor, Ph.D., University of Illinois, 1974; 1973.
 TESKA, JAMES A., Associate Professor, Ph.D., University of Illinois, 1969; 1973.

Speech Communication (College of Communications and Fine Arts)

BRENIMAN, LESTER R., Associate Professor, *Emeritus*, Ph.D., Ohio State University, 1953; 1954.
 BYTWERK, RANDALL L., Assistant Professor, Northwestern University, 1975; 1975.
 DEETZ, STANLEY, Assistant Professor, Ph.D., Ohio University, 1973; 1977.
 FISH, ROBERT A., Assistant Professor, Ph.D., University of Oklahoma, 1970; 1970.
 HIBBS, R. P., Professor, *Emeritus*, A.M., University of Wisconsin, 1942; 1965.
 HIGGINBOTHAM, DOROTHY, Professor, Ph.D., Northwestern University, 1961; 1974.
 HOLDRIDGE, WILLIAM E., Assistant Professor, Ph.D., University of Illinois, 1974; 1977.
 KLEINAU, MARVIN D., Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1977; 1963.
 KLEINAU, MARION L., Professor, Ph.D., University of Wisconsin, 1961; 1959.
 LANIGAN, RICHARD L., Associate Professor, Ph.D., Southern Illinois University, 1969; 1974.
 McDONALD, DONALD, Associate Professor, Ph.D., Michigan State University, 1971; 1976.
 McGLONE, EDWARD L., Professor and *Chairman*, Ph.D., Ohio University, 1967; 1975.
 McHUGHES, JANET LARSEN, Assistant Professor, Ph.D., Northwestern University, 1972; 1973.
 MICKEN, RALPH A., Professor, *Emeritus*, Ph.D., Northwestern University, 1948; 1957.
 PACE, THOMAS J., Professor, Ph.D., University of Denver, 1957; 1965.
 POTTER, DAVID J., Professor, *Emeritus*, Ph.D., Columbia University, 1943; 1960.
 SANDERS, KEITH R., Professor, Ph.D., University of Pittsburgh, 1968; 1967.
 SMITH, WILLIAM D., Associate Professor, Ph.D., Southern Illinois University, 1964; 1961.
 TALLEY, C. HORTON, Professor, *Emeritus*, Ph.D., State University of Iowa, 1936; 1948.

Speech Pathology and Audiology (College of Communications and Fine Arts)

ANDERSON, JOHN O., Professor, Ph.D., Ohio State University, 1950; 1950.
 BLACHE, STEPHEN E., Assistant Professor, Ph.D., Ohio University, 1970; 1971.
 BRACKETT, ISAAC P., Professor, Ph.D., Northwestern University, 1947; 1951.
 BRUTTEN, GENE J., Professor, Ph.D., University of Illinois, 1957; 1957.
 GARBUTT, CAMERON W., Associate Professor, *Emeritus*, Ph.D., Louisiana State University, 1951; 1947.
 HOSHIKO, MICHAEL S., Professor, Ph.D., Purdue University, 1957; 1957.
 KOEPP-BAKER, HERBERT, Professor, *Emeritus*, Ph.D., University of Iowa, 1938; 1961.
 MONCUR, JOHN P., Professor and *Chairman*, Ph.D., Stanford University, 1950; 1972.
 PACE, SUE A., Professor, Ph.D., Northwestern University, 1966; 1965.

Technical Careers, School of

ASHWORTH, EDWIN ROBERT, Assistant Professor, Ph.D., Southern Illinois University, 1972; 1963.
 BUSHEE, ELEANOR J., Professor, D.D.S., Northwestern University, 1948; 1963.
 CALDWELL, PAUL, Associate Professor, M.S. Ed., Southern Illinois University, 1965; 1960.
 DALLMAN, MURNICE H., Associate Professor, M.S. Ed., Southern Illinois University, 1960; 1954.
 DAROSA, EDMUND A., Professor, B.A., College of Saint Joseph, Portugal, 1936; 1964.

- EDWARDS, MARY CATHERINE, Associate Professor, M.A.Ed., University of San Francisco, 1962; 1975.
- HERTZ, Donald G., Associate Professor, Ed.M., University of Oklahoma, 1953; 1965.
- JOHNSTON, CHESTER E., Associate Professor, A.M., George Peabody College of Teachers, 1953; 1955.
- KUSEK, ROBERT W., Associate Professor, Ed.D., Boston University, 1974; 1975.
- LAMPMAN, DUNCAN L., Associate Professor, M.S.Ed., Southern Illinois University, 1956; 1954.
- LITTLE, HAROLD, Associate Professor, B.S., Pennsylvania State University, 1951; 1964.
- MIRIANI, THERESA B., Associate Professor, M.S., University of Denver, 1946; 1960.
- MUHICH, FRANK W., Associate Professor, M.S. in Ed., Southern Illinois University, 1957; 1952.
- PRATT, ARDEN L., Professor, and *Dean*, Ed.D., State University of New York at Buffalo, 1968; 1971.
- REYNOLDS, JOHN, Associate Professor, Ph.D., Southern Illinois University, 1971; 1974.
- ROBB, JAMES, Associate Professor, Ph.D., Southern Illinois University, 1974; 1962.
- RUTLEDGE, CLIFTON D., Associate Professor, M.Arch., Kansas State University, 1968; 1965.
- SODERSTROM, HARRY, Professor, M.S., Bradley University, 1952; 1962.
- TRAYLOR, GEORGE LELON, Associate Professor, M.S.Ed., Southern Illinois University, 1965; 1957.
- TROTTER, GENE, Associate Professor, B.S., North Dakota State University, 1939; 1973.
- VAUGHN, FRANK EUGENE, Associate Professor, M.S.Ed., Southern Illinois University, 1961; 1952.
- WORKUN, ARTHUR E., Associate Professor, M.S.Ed., Illinois State University, 1955; 1963.

Technology (School of Engineering and Technology)

- BARBAY, JOSEPH E., JR., Associate Professor, Ph.D., University of Missouri, Columbia, 1971; 1970.
- BESTERFIELD, DALE H., Associate Professor, Ph.D., Southern Illinois University, 1971; 1962.
- DUNNING, E. LEON, Professor and *Chairman*, Ph.D., University of Houston, 1967; 1957.
- JOHNSON, MARVIN E., Professor, Ed.D., University of Missouri, Columbia, 1959; 1948.
- KLOPP, MARK E., Associate Professor, M.S.Ed., Pennsylvania State University, 1954; 1956.
- MOELLER, C. MERRILL, Associate Professor, M.S.C.E., Kansas State University, 1951; 1956.

Theater (College of Communications and Fine Arts)

- CANNON, JOHN, Assistant Professor, M.F.A., Carnegie-Mellon University, 1968; 1973.
- MARSHALL, HERBERT, Professor, 1966.
- MCLEOD, ARCHIBALD, Professor, *Emeritus*, Ph.D., Cornell University, 1943; 1947.
- MOE, CHRISTIAN H., Professor, Ph.D., Cornell University, 1958; 1958.
- PAYNE, DARWIN R., Associate Professor and *Acting Chairman*, M.F.A., Southern Illinois University, 1955; 1963.
- PROCTOR, JOSEPH M., Assistant Professor, M.F.A., Brandeis University, 1971; 1976.
- REYNOLDS, HOWARD L., Assistant Professor, M.F.A., Smith College, 1969; 1975.
- STEWART-HARRISON, EELIN, Associate Professor, Ph.D., Louisiana State University, 1968; 1961.
- STRAUMANIS, ALFREDS, Associate Professor, Ph.D., Carnegie-Mellon University, 1966; 1973.
- TALAROWSKI, JOSEPH W., Professor, Ph.D., University of Denver, 1966; 1975.

Thermal and Environmental Engineering (School of Engineering and Technology)

- CHEN, JUH W., Professor and *Chairman*, Ph.D., University of Illinois, 1959; 1965.
- COOK, ECHOL E., Associate Professor, Ph.D., Oklahoma State University, 1970; 1971.
- HELMER, WAYNE A., Assistant Professor, Ph.D., Purdue University, 1974; 1974.
- HESKETH, HOWARD E., Professor, Ph.D., Pennsylvania State University, 1968; 1968.
- JEFFERSON, THOMAS B., Professor, Ph.D., Purdue University, 1955; 1969.
- KENT, ALBERT C., Associate Professor, Ph.D., Kansas State University, 1968; 1966.
- MUCHMORE, CHARLES B., Associate Professor, Ph.D., Southern Illinois University, 1970; 1966.
- O'BRIEN, WILLIAM S., Assistant Professor, Ph.D., West Virginia University, 1972; 1973.
- PETRIE, THOMAS W., Associate Professor, Ph.D., University of Minnesota, 1969; 1972.

RAJAN, SURYANARAYANIAH, Assistant Professor, Ph.D., University of Illinois, 1970; 1977.
 SINHA, ATMESH K., Associate Professor, University of Sheffield, England, 1963; 1975.
 STOEVEER, HERMAN J., Professor, *Emeritus*, University of Illinois, 1934; 1960.

Vocational Education Studies (College of Education)

ANDERSON, MARCIA, Assistant Professor, Ph.D., Southern Illinois University, 1975; 1970.
 BAILEY, LARRY J., Professor, Ed.D., University of Illinois, 1968; 1969.
 BAUERNFEIND, HARRY B., Professor, *Emeritus*, M.A.Ed., Northwestern University, 1943; 1951.
 BITTLE, R. E., Professor, Ed.D., University of Florida, 1956; 1969.
 BORTZ, RICHARD F., Associate Professor, Ph.D., University of Minnesota, 1967; 1967.
 BUILA, THEODORE, Associate Professor, Ph.D., Cornell University, 1968; 1968.
 CARTER, ROSE MARY, Assistant Professor, Ph.D., Purdue University, 1970; 1970.
 ERICKSON, JOHN H., Professor, Ed.D., Pennsylvania State University, 1953; 1955.
 FULTS, ANNA CAROL, Professor, Ph.D., Ohio State University, 1946; 1952.
 GALLINGTON, RALPH O., Professor, *Emeritus*, Ed.D., George Washington University, 1947; 1955.
 GOOCH, BILL G., Associate Professor, Ed.D., University of Tennessee, 1973; 1973.
 HUCK, JOHN F., Assistant Professor, Ed.D., University of Illinois 1973; 1970.
 JENKINS, JAMES, Professor, Ed.D., Pennsylvania State University, 1955; 1956.
 KEENAN, DOROTHY, Professor, Ed.D., University of Illinois, 1962; 1961.
 LEGACY, JAMES, Assistant Professor, Ph.D., Cornell University, 1976; 1977.
 RAHE, HARVES C., Professor, Ed.D., Indiana University, 1950; 1950.
 RAMP, WAYNE S., Professor, Ed.D., Bradley University, 1956; 1957.
 ROSENBARGER, MAXINE, Associate Professor, Ph.D., Southern Illinois University, 1970; 1973.
 STADT, RONALD W., Professor, Ed.D., University of Illinois, 1962; 1967.
 STITT, THOMAS R., Professor, Ph.D., Ohio State University, 1967; 1967.
 SULLIVAN, JAMES A., Professor and *Chairman*, Ed.D., West Virginia University, 1967; 1968.
 WESTBERG, WILLIAM C., Professor, Ph.D., Pennsylvania State University, 1948; 1952.
 WOOD, EUGENE S., Professor, Ed.D., University of Missouri, 1958; 1949.

Zoology (College of Science)

ANTHONEY, TERENCE R., Assistant Professor, M.D., University of Chicago, 1968; and Ph.D., University of Chicago, 1975; 1971.
 BEATTY, JOSEPH A., Associate Professor, Ph.D., Harvard University, 1969; 1965.
 BLACKWELDER, RICHARD E., Professor, *Emeritus*, Ph.D., Stanford University, 1934; 1958.
 BRANDON, RONALD A., Professor, Ph.D., University of Illinois, 1962; 1963.
 BURR, BROOKS M., Assistant Professor, Ph.D., University of Illinois, 1977; 1977.
 DYER, WILLIAM G., Professor, Ph.D., Colorado State University, 1965; 1969.
 ENGLERT, DUWAYNE C., Professor, Ph.D., Purdue University, 1964; 1963.
 FISHER, HARVEY I., Professor, *Emeritus*, Ph.D., University of California at Berkeley, 1942; 1955.
 GALBREATH, EDWIN C., Professor, Ph.D., University of Kansas, 1951; 1957.
 GAROIAN, GEORGE, Associate Professor, Ph.D., University of Illinois, 1956; 1956.
 GEORGE, WILLIAM G., Associate Professor, Ph.D., University of Arizona, 1961; 1964.
 GERSBACHER, WILLARD, Professor, *Emeritus*, Ph.D., University of Illinois, 1932; 1936.
 HARDIN, JAMES W., Assistant Professor, Ph.D., Southern Illinois University, 1974; 1974.
 HEIDINGER, ROY C., Associate Professor, Ph.D., Southern Illinois University, 1970; 1970.
 KLIMSTRA, WILLARD D., Professor, Ph.D., Iowa State University, 1949; 1949.
 LeFEBVRE, EUGENE A., Associate Professor, Ph.D., University of Minnesota, 1962; 1966.
 LEWIS, WILLIAM M., Professor and *Chairman*, Ph.D., Iowa State University, 1949; 1949.
 MARTAN, JAN, Professor, Ph.D., University of Oregon, 1963; 1964.
 McPHERSON, JOHN E., JR., Associate Professor, Ph.D., Michigan State University, 1968; 1969.
 PAPARO, ANTHONY A., Associate Professor, Ph.D., Fordham University, 1969; 1973.
 PETERSEN, BRUCE W., Assistant Professor, Ph.D., University of Colorado, 1968; 1968.
 SHEPHERD, BENJAMIN A., Associate Professor, Ph.D., Kansas State University, 1970; 1969.
 STAHL, JOHN B., Associate Professor, Ph.D., Indiana University, 1958; 1966.
 STAINS, HOWARD J., Professor, Ph.D., University of Kansas, 1955; 1955.
 STEIN, HILDA, Associate Professor, *Emerita*, M.S., University of Illinois, 1929; 1925.
 WARING, GEORGE H., Associate Professor, Ph.D., Colorado State University, 1966; 1966.

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Objectives of Southern Illinois University

TO EXALT BEAUTY

*In God,
in nature, and
in art;
Teaching how to love the best
but to keep the human touch;*

TO ADVANCE LEARNING

*In all lines of truth
wherever they may lead,
Showing how to think,
rather than what to think,
Assisting the powers
of the mind
In their self-development;*

TO FORWARD IDEAS AND IDEALS

*In our democracy,
Inspiring respect for others
as for ourselves,
Ever promoting freedom
with responsibility;*

TO BECOME A CENTER OF ORDER AND LIGHT

*That knowledge may lead
to understanding
And understanding
to wisdom.*



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